



This is a digital copy of a book that was preserved for generations on library shelves before it was carefully scanned by Google as part of a project to make the world's books discoverable online.

It has survived long enough for the copyright to expire and the book to enter the public domain. A public domain book is one that was never subject to copyright or whose legal copyright term has expired. Whether a book is in the public domain may vary country to country. Public domain books are our gateways to the past, representing a wealth of history, culture and knowledge that's often difficult to discover.

Marks, notations and other marginalia present in the original volume will appear in this file - a reminder of this book's long journey from the publisher to a library and finally to you.

Usage guidelines

Google is proud to partner with libraries to digitize public domain materials and make them widely accessible. Public domain books belong to the public and we are merely their custodians. Nevertheless, this work is expensive, so in order to keep providing this resource, we have taken steps to prevent abuse by commercial parties, including placing technical restrictions on automated querying.

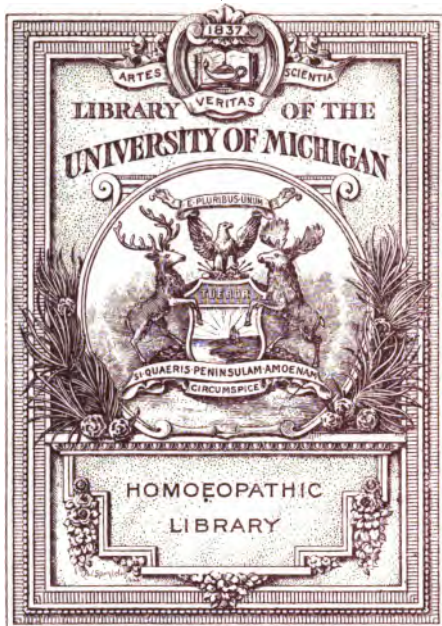
We also ask that you:

- + *Make non-commercial use of the files* We designed Google Book Search for use by individuals, and we request that you use these files for personal, non-commercial purposes.
- + *Refrain from automated querying* Do not send automated queries of any sort to Google's system: If you are conducting research on machine translation, optical character recognition or other areas where access to a large amount of text is helpful, please contact us. We encourage the use of public domain materials for these purposes and may be able to help.
- + *Maintain attribution* The Google "watermark" you see on each file is essential for informing people about this project and helping them find additional materials through Google Book Search. Please do not remove it.
- + *Keep it legal* Whatever your use, remember that you are responsible for ensuring that what you are doing is legal. Do not assume that just because we believe a book is in the public domain for users in the United States, that the work is also in the public domain for users in other countries. Whether a book is still in copyright varies from country to country, and we can't offer guidance on whether any specific use of any specific book is allowed. Please do not assume that a book's appearance in Google Book Search means it can be used in any manner anywhere in the world. Copyright infringement liability can be quite severe.

About Google Book Search

Google's mission is to organize the world's information and to make it universally accessible and useful. Google Book Search helps readers discover the world's books while helping authors and publishers reach new audiences. You can search through the full text of this book on the web at <http://books.google.com/>

B 477834 DUPL



THE GIFT OF

Dr. H. J. Jones

A. 616.0

J77

THE
THEORY AND PRACTICE
OF
MEDICINE.

BY

GAIUS J. JONES, M. D.

*Dean and Professor of Theory and Practice, Cleveland
Homeopathic Medical College ; Consulting Physi-
cian and President of the Visiting Staff,
Cleveland Homeopathic Hospital ; Member
American Institute of Homeopathy,
etc., etc.*

EDITED AND ARRANGED BY

J. RICHEY HORNER, A. M., M. D.

*Professor of Mental and Nervous Diseases and Electro-
Therapeutics, Cleveland Homeopathic Medical
College ; Neurologist, Cleveland Homeopathic
and Cleveland City Hospitals ; Member
American Institute of Homeopathy,
etc., etc.*

PUBLISHED BY THE AUTHOR.

1903.

10 May 1901

DEDICATION.

To the practitioners of homeopathy who secured their medical education in whole or in part at the College in Cleveland under his instruction, this book is respectfully dedicated by

THE AUTHOR.

90-9-4

COPYRIGHT, 1903

BY

GAIUS J. JONES, M. D.

PRESS OF
MATILL & LAMB,
265-275 WOODLAND AVENUE,
CLEVELAND, O.

EDITOR'S PREFACE.

In presenting this second edition of the Lectures of Prof. Jones, the editor desires to call attention to some salient features. In making comparison of this book with another treating of the same subject it must be remembered that the author depends absolutely upon the experience gained during nearly forty years of more than usually active practice. We are safe in saying that not one paragraph has been taken from other authors. A similar comparison of many other authors reveals the fact that one-half, possibly more of the material used by them was taken from writings already published. Hence it is that the thousand page book if edited from the standpoint of the author's personal experience and practice would dwindle down to one-fourth of the size.

Prof. Jones makes practically no attempt to discuss theoretical propositions concerning etiology and pathology. The work is eminently practical being made up entirely from stenographic reports of lectures delivered before his classes. He does not lecture from manuscript being guided by brief headings and notes.

From the standpoint of a materia medicist some criticism might be made—but it is a well known fact, that the general practitioner while not restricting himself in any way in the use of our remedies usually finds that nine-tenths of his patients will be treated with a few remedies. Probably thirty remedies will be all that he will require generally, and the remaining tenth of his patients will be such as require a study of materia medica not suitable to the scope of such work as this.

We present the book with the full belief that we are doing a service to homeopathy and homeopathic physicians. The task was gladly and cheerfully accepted and its completion is reached with the hope that the student and practitioner may derive as much pleasure from the book as has

THE EDITOR.

TABLE OF CONTENTS.

	PAGE.
CHAPTER I.—General Considerations.....	1
Disease, Symptoms, Examination, Diagnosis, Prognosis, Death, Treatment.	
CHAPTER II.—Fevers.....	54
Inflammation, Fever, Typhoid Fever, Malarial Fever, Smallpox, Scarlet Fever, Measles, German Measles, Chickenpox, Cerebro, Spinal Meningitis.	
CHAPTER III.—Diseases of Respiration.....	158
Examination, Hay Fever, Tonsillitis, Quinsy, Laryngitis, Membranous Croup, Diphtheria, Asthma, Bronchitis, Whooping Cough, Pleurisy, Pneumonia, Tuberculosis, La Grippe.	
CHAPTER IV.—Diseases of the Digestive Tract.....	278
The Oesophagus, The Abdomen, The Stomach, Gastritis, Chronic Gastritis, Ulceration of the Stomach, Cancer of the Stomach, Intestinal Canal, Enteritis, Phlegmo- nous Enteritis, Dysentery, Typhlitis, Perityphlitis or Appendicitis, Cancer of the Intestine, Peritonitis.	
CHAPTER V.—Diseases of the Liver, Spleen and Pancreas.....	342
The Liver, Gall Stones, Jaundice, Cirrhosis of the Liver, Cancer of the Liver, Abscess of the Liver, Hydatid of the Liver, Fatty Liver, Waxy Liver, Hyperæmia of the Liver, Yellow Atrophy of the Liver, Pancreas, Spleen.	
CHAPTER VI.—Rheumatism.....	365
CHAPTER VII.—Diseases of the Circulatory System.....	378
Angina Pectoris, Pericarditis, Endocarditis, Hyper- trophy of the Heart.	
CHAPTER VIII.—Diseases of the Urinary Tract.....	410
The Kidney, Acute Parenchymatous Nephritis, Bright's Disease, Renal Calculus, Abscess of the Kidney, Carci- noma of the Kidney, Degeneration of the Kidney, Amyloid Kidney, Diabetes Insipidus, Diabetes Mellitus.	

INDEX.

..THE..

PRACTICE OF MEDICINE.

CHAPTER I.

GENERAL CONSIDERATIONS.

DISEASE.

Disease is the opposite of health; a derangement of the structure or function of the body, causing pain or discomfort, with a tendency to shorten life. It is not a tangible thing that can be seen or felt or purged away. We are able to judge of it only by its effects or manifestations. We know, too, that certain causes tend to produce certain diseases, and that like causes, in general, produce like results. The causes of disease are divisible into two great classes, Predisposing and Exciting.

Predisposing Causes.—A Predisposing Cause is one which makes a person more liable to contract a certain disease than the average of other persons. This rule, carefully examined, has, like all other rules, its exceptions.

Among Predisposing Causes, we notice the influence of Age, or the influence of conditions peculiar to certain ages. There is a rule which you will find to be universal, viz: that the part which is best nourished is most liable to disease; where growth is most rapid, you find disease, if at any point. In children you find the brain and the alimentary canal in a very active state; the brain is proportionately larger than in the adult, and consequently we find children more liable to diseases of the brain and alimentary canal than of any other part.

Next in importance, we find the respiratory tract, which, too, is

very active, and therefore we find children more subject to Bronchitis and other catarrhal affections. The feebleness of the child is another predisposing cause. The child is delicate and small; the heart is small, it breathes rapidly, and has a feeble resisting power. The child has not the endurance of the adult.

The influence of sex aside from that due to the construction of the generative apparatus has something to do with the cause. Chlorosis is a disease which does occur in the male occasionally, but it is much more common in the female. Exophthalmic goitre is a disease which is more common in the female than in the male, partly on account of peculiarity of sex and partly on account of difference of occupation. We have the same difference in diseases of the nervous system, during the time of menstrual activity in the female, but after that the difference between the sexes is not so great. The most common cause which predisposes to disease refers to the peculiarities, inherited and otherwise. There is scarcely a person who does not contain within himself some element tending to produce disease. A good family history is of great value. Life insurance companies that have made that a business and have brought all this knowledge into a question of finance, are exceedingly careful about this. Some of the questions are apparently useful, such as inquiring in regard to the grandparents or great-grandparents, uncles and aunts, and then asking you to mention the number of children,—the number of boys and girls in the family, and if dead at what age they died, how long they were sick, and what was the cause of death, and some go as far as to make ironclad rules which seem to be unjust in many cases. I know companies who will not accept an individual where either parent died of tuberculosis, no matter what age the individual was when the parent died. This seems to be a very unjust rule, and is being overcome at the present time by some of the better companies. They will take these individuals at a slightly increased premium, with the promise that at some future time, if conditions improve, they will give them the benefit of the regular rate. That they do not regard this point as very important, is indicated by the fact that this advanced premium is only a little more than the regular premium. Just how this is I could never explain. I have thought of it many times and it seems to me that in many of these cases which we term hereditary the condition is the result of direct contagion. For instance, we find two, three or four in a family dying of tuberculosis and under the recent light of bacteriological experiment we find that there is a possibility that the disease was conveyed from one to the other. The house perhaps was not properly disinfected, or perhaps the patients were



exposed one to the other, without any regard to the contagious character of the disease. That does not explain the fact that where perhaps two aunts or two uncles have died of this disease the children of the brother or sister should be more liable to have it than the average of other cases. We frequently ask the question, "Have any of your people suffered from pulmonary troubles?" They try to get around it, and perhaps they will state, "Father had two sisters who died at the age of twenty-five. It was said that they died of bronchitis." You ask the question, "How long were they sick?" "A year or two. They coughed all the time." That would about settle the question and would prove that it was tubercular trouble. Now how is it that the niece should be more inclined to tuberculosis simply because the aunts died of it? There certainly could not have been any contagion in a case of that kind.

So in cases of carcinoma. Take for instance a case like this: A lady came to me at the climacteric. She was having a continuous hemorrhage, and she said to me, "If I have cancer I do not want you to tell me because my mother and grandmother died at my age of cancer of the uterus." I made an investigation and found that she had just what she dreaded—carcinoma of the uterus. She lived longer than they usually do, though it was in an advanced stage then, and there was no attempt made to operate the case. How can you explain this, the grandmother, mother and daughter dying at the climacteric from carcinoma of the uterus? We endeavor to find out the family history, as that has a bearing upon the case. Take rheumatism, for instance, we find whole families suffering from rheumatism, perhaps some of them crippled and suffering to a greater or less degree, and we generally ask the question in reference to whether there was a tendency to that sort of thing or not. In Colles fracture, a patient predisposed to rheumatism will not make a complete recovery.

Then too, how it is that a person becomes immune from a disease by having an attack of it is something we do not thoroughly understand; why a person does not take smallpox just as well a year after he comes out of the pest house as he did before; why he does not have scarlet fever or measles a second time, but that is the case and he is rendered immune by the attack. This is important in connection with the diagnosis of the case. You have a case which you suspect to be scarlet fever, and you ask the question, "Did this child ever have any of the eruptive diseases?" They say, "Yes, he had scarlet fever about five years ago." Then you go into the history of it. Sometimes they are supposed to have had scarlet fever when they have not, but

if the mother states to you, "The child had a very severe and general eruption, and little points upon the surface, and then after the fever subsided he began to peel off generally" that settles the question. Sometimes a child may have scarlet fever a second time. I remember an instance of that kind. An old physician had told me of two cases of scarlet fever in which the nails of the fingers and toes came off during the process of desquamation, the worst cases he had ever treated, that recovered. This was about twelve years before I was called to treat the younger of these two girls, who was then about fourteen. I was unable to go, so I sent my partner and he reported that it looked like a case of scarlet fever, but they told him that she had had scarlet fever when she was a little child in an extremely bad form. I told him I remembered a Doctor telling me about it. Now this first physician was dead. I went with my partner next morning to see the case. I said, "This is a case of scarlet fever." They said, "She had scarlet fever in childhood." I said, "It does not make any difference if she has had it fifty times before, she has it now." It affected the balance of the family and we had four other cases in that family in a very bad form; the older girl of the two did not have it. During the epidemic in Philadelphia in 1868-71 there were cases on record there who died of smallpox who had it once or twice before, but those are exceptional cases.

There are many other causes which may predispose to a second attack. A patient comes to you saying that he has a very severe sore throat. You find the tonsils swollen, and perhaps little circular patches there. You suspect it is a case of follicular tonsillitis. To help you out in your diagnosis you ask the patient if he is subject to sore throat. He says, "Yes, I have it every year, and sometimes more frequently, and I have been exceedingly sick with it." That settles the question that it is not diphtheritic, and it is a great question, for diphtheria is a disease which cannot be diagnosed very readily. Tonsillitis comes on rapidly. A patient rarely has diphtheria more than once. When a patient tells you he has had diphtheria frequently, you may make up your mind that it is not so; that it is simply a chronic inflammation with these acute aggravations. The first acute attack of catarrhal inflammation is liable to be worse than subsequent attacks. If you are called to a case of dysentery, you ask the question, "Did you ever have anything of that kind before?" "Yes, I have had attacks of dysentery almost annually." This varies your prognosis very materially, because a patient who has had dysentery every year is very liable to have another attack. But if this is the first attack the prognosis is not so favorable.



Then, too, there are the effects of occupation, or habit of life. Those of sedentary habit are predisposed to disease of digestion and to renal diseases. These people take little exercise and there is lessened activity of the viscera, and if such persons are intemperate in eating or drinking, the system becomes overloaded, and as a result we get disease. Those engaged in mental pursuits are more liable to diseases of the brain and nervous system, while those engaged in active out-door business are more liable to Rheumatism and affections of the extremities, muscles, bones, etc.

Again, the effect of previous disease has quite an influence. There are many diseases that render a person more liable to a second attack. This is true of the catarrhal affections, a large class of which we have to treat. A patient having had any of these, is more liable to a second attack. This is partly due to an imperfect cure. Thickening of the mucous surface remains, and there may be abrasions, indurations of the glands, etc. Laying aside all this, there is a general tendency to catarrh, which is increased by every attack. Rheumatism is another disease in which a person is much more liable to a second attack.

There is the influence of heat and cold, the moisture or dryness of the atmosphere or more than all else in this line the impurity of the atmosphere. These are atmospheric causes.

Every climate has its peculiar class of diseases, and every season also. In Winter, the cold months, or rather in the changeable, cold months of the latter part of Winter or Spring, we have the catarrhal affections, croup, bronchitis and pneumonia, with the accompanying pleuritis. These all render a person more liable to Tuberculosis. In Summer, we have intestinal troubles, diarrhoea, dysentery, cholera morbus, and later we have typhoid fever. At all times of the year, but worse in warm Winters with but little frost, we have diphtheria.

These are the predisposing influences to which all persons alike are subject. When these prevail, producing disease over a large section of the country, we term it Epidemic. Why a disease during one year is Epidemic, and during another is Sporadic, is difficult to say. I cannot understand why we may have one case of Scarlet fever in a family of several children, and that the only case in that township during that year, and another year the whole family and every child in the neighborhood have it. This is also true of Facial Erysipelas. Malignant diphtheria always spreads.

Exciting Causes.—An Exciting Cause is one which immediately imparts disease, and gives to it its specific character.

These generally act promptly, suddenly, and are not of long con-

tinuance. Gastritis or inflammation of other portions of the alimentary canal are often produced by some irritating substance taken into it.

A large number of cases come from mechanical causes. Exopathic or Endopathic,—acting from without or within; these include all the surgical diseases.

Under this head may be mentioned obstructions to the tubes or ducts, as, for example, gall stones, producing colic or jaundice. Obstruction of the bronchial tubes, or of the ureters or seminal ducts, or contraction or thickening of the bowel. In the treatment of these cases, we must bear in mind how much will certainly remain. Displacements of various organs, as of the uterus or kidneys act under this head.

Chemical Causes.—These act in the same way, from without or within. This class includes a large number of drugs, as for example, Tartar Emetic and Croton Oil,—exopathic chemical causes. Poisoning by carbonic acid gas, poisoning from urea from some diseases of the kidneys, poisoning from bile when the liver is diseased, are examples of endopathic chemical causes.

SYMPTOMS.

A symptom is a concurring circumstance, happening simultaneously with a disease, serving to point out its nature, character and seat. It guides you to a location of trouble and tells you something of the disease.

Pathognomonic Symptoms.—These are positive signs of disease.

Diagnostic Symptoms.—These are not positive, although they generally indicate a particular disease. It may be present in other diseases. The rusty sputum, of Pneumonia is a pathognomonic symptom, and when you have that present, you scarcely need go further. You are almost as positive as if you had already examined the chest.

Objective Symptoms.—These come to us through the medium of our senses, and for this purpose we use the eye, ear, or hand,—the senses of seeing, hearing or touch. What we see, ordinarily, is true, and we are convinced. Our own eyes may deceive us, however, but they are much less liable than the eye of someone else.

Subjective Symptoms.—We secure a knowledge of these through some other person. Sometimes we have to depend altogether upon subjective symptoms; in such a case it is important to be able to obtain the best. And in this the skill of the physician is tested. It is the same qualification that the attorney needs in the cross-examina-

tion of a witness. One attorney may easily secure the information he desires, while another, spending more time, utterly fails. This comes from habit, and it is here you are to lay the foundation. Your mind must work in certain lines by force of habit, and then it becomes an easy matter. First of all, to be able to become a good diagnostician, you should understand Anatomy, the foundation of all medical knowledge, the fixed points of organs, and the changes which take place naturally, incident, chiefly to growth. Then comes the knowledge, of Physiology, which is just as important. You must learn the sounds of health before you can understand the sounds of disease.

EXAMINATION.

There are two methods of examination, the first Synthetical or Historical, and the other Analytical. We often combine them. Sometimes we depend upon the history altogether. In sub-acute and chronic cases the former is the chief method of examination. I submit the following, taken from Da Costa's work on Diagnosis, as a complete guide for taking the record and making the examination of a case.

- I. Date of Examination.
 Name of Patient.
 Age.
 Place of Birth.
 Present residence and duration.
 Occupation.
 Whether Married or Single.
- II. HISTORY.
 - A. Previous to present attack—
 1. Hereditary predisposition.
 2. Habits, mode of life, (previous occupation).
 - B. Of present disease—
 1. Exciting cause, if known.
 2. Mode of invasion, and subsequent symptoms in the order in which they appeared.
 3. Previous treatment.
 - C. Present condition of the Patient—
 1. Position; if in bed, mode of lying, if out of bed, character of movements of patient.
 2. Aspect, first of body, whether emaciated or not, and next the aspect of the face, condition of the skin, character of the pulse, temperature; the appearance of the tongue.

3. Condition of the alimentary canal, appetite, thirst; condition of the stomach as indicated by nausea and vomiting, accumulation of gas and pain. Then the intestine, judge of this by the constipation or diarrhœa; character of the evacuations. Location of the pain, if any, and the effect of taking different articles of food.
4. Urinary organs, frequency of urination, whether painful or not, and the character of the voided fluid.
5. Respiratory organs, heart and blood vessels.

Special examination. Then the diagnosis. After having taken the symptoms, you now prescribe, and keep a careful note of every prescription.

Mode of invasion.—Suppose a patient coming home in an open street car is taken with a chill, having been perfectly well before, you would leave out of your mind the idea of typhoid fever, but if he says that for the past two or three weeks he had been miserable, had no ambition, bowels were constipated, had pains in the back and lower extremities, was inclined to have a chill when he exposed himself, and you find the temperature above normal, 102 or 103 degrees, the tongue covered with a light coating, the pulse a little above normal, corresponding to the temperature, you at once suspect that you have a case of typhoid fever, although you cannot name this disease at the first visit.

Present condition. Position in bed; mode of lying.—In pleuritis, for instance, the patient lies on the left side, curled up so as to prevent as far possible, movements of the chest upon that side, or, if he is up, you will find him holding his side with his hand. You find the symptom in intercostal neuralgia. There is another disease with the same symptom which is not common, and which we sometimes overlook,—herpes zoster, or shingles, a disease which is an affection not only of the skin, but of the nerves; we have a neuritis which is intense and very severe. You notice little clusters of vesicles upon the left side of the chest, and you cannot understand, if you have never treated a case, why the patient suffers so intensely. He will say that the pain is worse than anything he has ever experienced, coming on in paroxysms and extending from the spine around to the anterior surface of the body directly under these clusters of vesicles. It is a disease, which, if not promptly treated, or if treated improperly, is liable to terminate in a chronic neuritis which lasts, perhaps as long as the patient lives.

Then, if the patient is out of bed, you notice the character of the

movements. The child goes limping around and you ask the parents, "Has the child been injured recently?" They will say, "No, he has been walking that way for some time." You examine the child and find hip disease or you may find a swollen joint, or there may be some rheumatic history.

A very important thing in the appearance of the patient is emaciation. It has a bearing upon all the serious affections. A patient cannot lose more than one-third his weight with safety. If the loss exceeds this, he is in danger from that alone. Providing there is nothing the matter with that man except failure of nutrition or that he is unable to secure the proper food, if he were starved to that extent he would be in danger. There are very few diseases in which we have that loss except the fatal ones. We occasionally find it in the long continued run of fever, but the patient usually dies, or comes very near to it. The two chronic diseases which produce a loss of flesh possibly more than any others are carcinoma and tuberculosis. If a patient comes to you with a history of nausea and vomiting, and extreme pain in the epigastrium especially after eating, and in addition to that you have loss of bodily weight amounting perhaps to the proportion stated, your attention would be called at once to carcinoma, that is, you would suspect it. It is true, we get considerable loss of flesh from failure of digestion, possibly from a catarrhal inflammation which produces a continuous diarrhoea,—catarrhal enteritis, but the emaciation is hardly as great, and it does not come on as suddenly as in this disease. You would not say that the patient had carcinoma unless you could feel it. That is my rule. I think it a pretty good rule in such cases not to state at once that the patient has carcinoma unless you are able to detect the nodular growth. I had a case recently in which we had a chronic obstruction of the bowel, that is, the obstruction did not come on suddenly. Now it is a fact that four out of five of these cases of sub-acute or chronic obstructions of the bowels in persons above forty are due to carcinoma. This was a man sixty-two years old. When I saw him he had severe pain after eating; very little food passed out of the stomach, except in an upward direction, and he had a few days prior to my visit stercoraceous vomiting. The whole abdomen was full of gas and you could see the contour of the small intestines as they appeared under the attenuated abdominal wall. Every symptom indicated that there was obstruction. The inguinal glands upon the right side were somewhat enlarged. I said to the people, "Four chances out of five there is a carcinomatous growth which is compressing the bowel, and preventing anything passing it. The other chance is that it is due to parenchy-

matous inflammation, an inflammation of the whole wall of the bowel, and the accumulation of fecal matter within is producing this obstruction." I told them to feed him per rectum, giving him something to allay pain, if necessary. That treatment would cure him if it was a curable affection. He, however, died seven weeks later, and cancer of the cæcum was found.

Then you may notice, the opposite condition, whether there is excessive fulness of the body, or bloating. This would generally be due to the accumulation of fluid in the tissues. You note whether this fluid is in the abdomen or general. If in the abdomen only, it must be due to some obstruction of the portal circulation; if of the whole system, some cardiac or renal disease. You examine the heart and have the urine tested for the purpose of detecting any indications of nephritis. The probabilities are that you have a cardiac weakness and doubtless if not then you will later discover the trouble with the heart.

You look at the face of the patient. That of course tells you that the patient is thin, generally, and will tell whether the patient has fever. You are familiar with the characteristic hectic flush of wasting diseases, chiefly tuberculosis. The patient's face is perfectly white except over the malar bone there is a bright red spot. These spots appear generally in the latter part of the day when the fever is highest. Such evanescent color is not healthful. We find a good many people who appear to the ordinary individual to be the picture of health, but they are far from it. I have in mind a patient of that kind. When she feels the worst she looks the best. She has more color in the face, but this is due to exhaustion. These people are delicate, as a rule. Then you notice the color of the face aside from that. Jaundice is indicated by yellowness of the face and skin generally. You may be unable to distinguish sallowness from jaundice. The sallowness of some people is natural, but if you raise the upper lid of the eye you can tell whether it is jaundice or not. If it is jaundice the sclerotic coat is colored as much as the skin. Of course the eruptive diseases have a certain exanthem. You have, for instance, in variola hard elevations upon the forehead at first; measles has a blotchy appearance, appearing first on the face; scarlet fever has general redness which first appears on the anterior surface of the chest. We have a difference between varicella and variola which you will hear of again. These vesicles which precede the pustules in variola come in crops in varicella, but there is only one crop in variola.

You never fail to investigate the condition of the alimentary canal. Almost the first indication of impaired health is loss of appe-

tite. In rare instances we get an abnormal appetite, but that is unusual. The usual custom is to ask the patient after you examine the tongue, about the condition of the stomach and appetite. He will say, "I have no appetite at all, I simply force down food. I take a little, but I feel extremely full after eating. I have a colicky condition and am obliged to go to stool soon after eating." He may have an aversion to some particular kind of food or smell of food. In women this may cause you to suspect pregnancy. This is one of the conditions which we have to diagnose frequently and about which there is considerable controversy in many instances. Then you may find that the patient cannot take solids and dispose of them properly. If he takes any solid food, about an hour after eating he is distressed and pain continues for some time or possibly he is unable to dispose of it until he vomits. This, of course, would indicate that he had some obstruction at the lower end of the stomach, and that is not an uncommon condition. It is a condition which is much more common than I formerly supposed. The duodenum is not very large. It is the most fixed part of the bowel and the smallest. If the lining of the duodenum is very much thickened the calibre of the bowel is lessened, and if the inflammation extends to the muscular coat you lose peristaltic power and it cannot pass the food downward, so you have a cause for obstruction,—a lessening of calibre and a loss of peristaltic power. Very many of the cases which we treat have this condition in a mild degree. It may subside in some instances without any treatment, or it may go on until the stomach becomes very much distended and enlarged. It is not difficult to palpate the stomach. I have seen the inferior border extend down, nearly filling the abdominal cavity. This was a case of stenosis due to carcinoma. I was recently surprised at the change which took place in the stomach in relation to its size in a case of carcinoma of the cæcum. The patient had had no food by stomach for nearly three months, excepting teaspoonfuls of water. It was difficult to distinguish the stomach from the transverse colon. It was simply a long tube not more than two inches in diameter.

On the other hand is the enlargement which is due to some obstruction of the bowel. You ask about the condition of the bowel. You ask how frequently the bowels move. Of course normally there should be one evacuation daily, although some persons in perfect health have more. Possibly some quite as healthy go forty-eight hours. Perhaps the patient may say, "I am obliged to go to the closet before breakfast. Sometimes it gets me out of bed and the stool is usually liquid. There is running off of the bowels for a few hours and then I am well for the balance of the day." In such cases there

is a catarrhal inflammation of the small intestine, and there is an accumulation during the night which is expelled in the morning. During the balance of the day nutrition is more active and the patient can digest food and care for it better. You will ask the question, "Are the stools watery or profuse? And are they accompanied with a great deal of tenesmus?" In the latter, you go on further and ask, "Is there any blood or mucus?" The patient says, "Yes, frequently. There is a great deal of straining and a small stool. 'I am obliged to go to stool frequently, and I have to be exceedingly careful for some time afterward.'" You do not require to ask any further questions in regard to the location of the trouble. You know that the trouble is in the rectum,—and that these stools are dysenteric. If they are profuse and watery the trouble is in the upper portion of the bowel. We have sometimes very severe epidemics of dysentery which are extremely fatal,—several members of a family dying within a short time. In such cases it is important to know that the patient is suffering from dysentery for this reason,—and you should send that patient to bed at once. In fact in all cases of diarrhoea or dysentery it is better to have the patient in bed. In a case of dysentery it is quite important that you stop it in the state of congestion, for if it goes on you get ulceration, sepsis, and all the results that we have in lingering cases of that kind.

So far as the examination of the urine is concerned, this should be conducted in nearly all chronic cases, and in many of the acute cases. Frequently this is the key to the situation. I suppose every one of you is thoroughly qualified to test for the abnormal ingredients which occur most frequently, albumen and sugar. Of course you can get the specific gravity; that tells you something about the waste that is going on, or the small amount of fluid which the patient is voiding. A certain amount of solid matter must be carried off in this way in twenty-four hours, but if the quantity eliminated is diminished, if the amount of water contained is less than usual the specific gravity is increased necessarily. If the amount of water voided is very much increased, with the same amount of solid matter, the specific gravity is lessened. We have in diabetes insipidus a specific gravity that is only a little above that of water, while in a case of fever where we have a very small amount of urine voided, with a great deal of waste going on, the specific gravity is very much increased—30 to 40. You are to suspect certain conditions when you find a great change in the specific gravity.

The test for albumen is very simple. A very faint trace of albumen may not indicate anything very serious, but if there is a con-

siderable amount you would, of course, suspect nephritis, and you could note by watching the case from day to day, the progress of the case by the quantity of albumen, whether it was increased or diminished. I do not know what you have concluded in regard to this. I find that generally students when they go out into practice are somewhat alarmed when albumen is present in the urine. A case in point, a young physician who recently located here, had a child suffering from measles. The child had as a sequel to the measles, albuminuria, and it was a serious case. He examined the urine and found a large amount of albumen. I do not know whether he applied the test but there were granular and hyaline casts, and the child was dropsical. He said to the parents, "The case is incurable. I can do nothing more for the child." I said to them when I saw the child, had examined the urine and found this condition, "The majority of cases of this kind, where the trouble is acute, coming on as this did, after an attack of acute disease, get well. I will not promise that the child will recover, but I think it will." And it did in the course of two or three months.

The microscopical examination of the urine should be conducted by some one who is proficient in that method. Of course it is not exceedingly difficult for any one to become skillful in that line, but the ordinary practitioner if he has no microscope very soon forgets some of the methods, and I find that a great many of those with whom I consult are liable to be mistaken. It has been my practice for twenty years to insist upon careful examination of the urine in all serious cases. If we find anything that is extraordinary, a specimen is sent to some one who understands examinations better than we do. If it is a case of nephritis, for instance, and the report confirms the diagnosis, we can watch the progress of the case afterward without another microscopical examination. It is not necessary to repeat this microscopical examination very often. It is humiliating to treat a case for a considerable time without having examined the urine, and then find that you have a large quantity of sugar or possibly albumen, but it is still more humiliating if some one else makes the discovery. It would be better for you in all of your office cases, excepting, of course, colds, etc., to have a specimen of urine left for examination. Many times you will discover that which someone else had failed to find.

It is well too, if you suspect anything like diabetes, to have the quantity of urine saved. If the patient is working, let him begin Saturday night at 6 o'clock and from that time until 6 o'clock Sunday

night save the urine and measure it carefully so that he can report to you.

The generative organs come next, and there are few questions in regard to these organs that you will generally ask. If there is an anæmic condition which cannot be accounted for in any way, if there is excessive nervousness, insomnia or some other disturbance of the nervous system we investigate as to the cause. It is not always an easy matter to find out this cause, and it requires some skill on the part of the physician to do that, but if he uses the proper means he can discover it and in his attempt to gain this knowledge, he secures the confidence of the patient. The patient may be thoroughly aware of the cause of this trouble, yet he schemes to deceive the physician in regard to it.

In the female the menstrual function should receive attention. It is perfectly proper in any case to inquire in regard to this function—whether it is normal in every particular; whether it is excessive or scanty, too frequent or prolonged; and whether there is any pain. A slight amount of pain during menstruation does not necessarily indicate any serious disturbance.

For the examination of the abdomen the patient is placed on the back with knees flexed and shoulders elevated. By palpation you endeavor to discover any variation from the normal position of the various viscera.

You will find perhaps that there is a thick abdominal wall. It is a pretty difficult matter to palpate through a wall two inches thick, but where the patient is somewhat emaciated you can map out with considerable accuracy the various organs. By changing the position of the patient first on one side and then on the other, you will be able to detect the abnormal position of some organ. The liver may be prolapsed; it may be lower down than it should be—possibly an inch or two. This is not a very uncommon thing in persons who are very much debilitated. In a case where the liver is very much enlarged, it may have been carried down by its own weight and does not return when it is reduced to its normal size, and by percussion from above downward you will find that the superior border follows the inferior and that the thickness is not greater than it should be.

The kidneys are not infrequently displaced, and the floating or movable kidney is not exceedingly uncommon. This is generally the right. If the patient is debilitated or emaciated the walls are thin, and placing the tips of the fingers of one hand posteriorly in the region, crowding upward, and the other hand in front, you will be able to entrap the kidney between the two hands and if it is movable it

will elude your grasp and slip out between your hands. The long diameter is from above downward, corresponding to the axis of the body, and it is not such a difficult matter to indicate that this organ is displaced. I had a case recently in which the question was whether the solid mass we found just to the right of the umbilicus was the kidney or liver. I thought I had demonstrated it satisfactorily by this method, but the long diameter was from above downward and the dullness did not continue back as far as the liver, but there was a resonant space between the kidney and the liver, although in that case—a chronic malarial case, the liver was considerably enlarged and made the diagnosis a little more difficult. It requires quite a little dexterity to detect these movable kidneys. They are more frequent than I formerly supposed, and this is the way I attempt to find one. First, have the patient sit up—or stand—and cough, or take a deep inspiration, which would tend to force the kidney downward, and then I see if I can feel it. I next have the patient lie on the back and note whether this dullness entirely disappears. Of course there are symptoms which lead us to suspect that this is the trouble. Generally we have some obstruction of the bowel, indicated by colic, or possibly nausea and vomiting, and then the pain in this region disappears perhaps as suddenly as it came. By palpation you can judge whether there is anything abnormal in the abdomen and whether it is solid or fluid. If the fluid is not confined in a sack, there would be some fluctuation. You would get dullness in doubtful cases on percussion, and by moving this mass about you can find to what it is attached. If it is to the pelvic organs it will not be moved upward, while perhaps it can be readily moved laterally and to some extent downward. If it is attached to the liver it can be moved upward, but not downward.

The stomach frequently becomes very much enlarged and by simply tapping it you can feel the movement of the fluid within, or you can detect the contour of the stomach. Sometimes it is enlarged to an enormous degree, holding a gallon or more, but when that amount of fluid is contained it will probably extend as far as the crest of the ilium and below the umbilicus. It requires a careful study and frequent examination to satisfy one's self in regard to this.

The spleen becomes enormously enlarged sometimes, particularly in the malarial cachexia when you find what we term ague cake. We have had such cases in our clinics. I remember one case, a man coming here from Indiana, having had ague there, whose spleen extended to the crest of the ilium and umbilicus. In that case the liver was enlarged too, as is usual in such cases, but where an organ is enlarged as a rule it preserves its contour; the spleen would pre-

sent about the same contour as it would originally, and the liver in the same manner, excepting perhaps, in carcinoma, when we get a nodule condition. Even in a case of carcinoma of the liver you would find the line somewhat parallel to the original line.

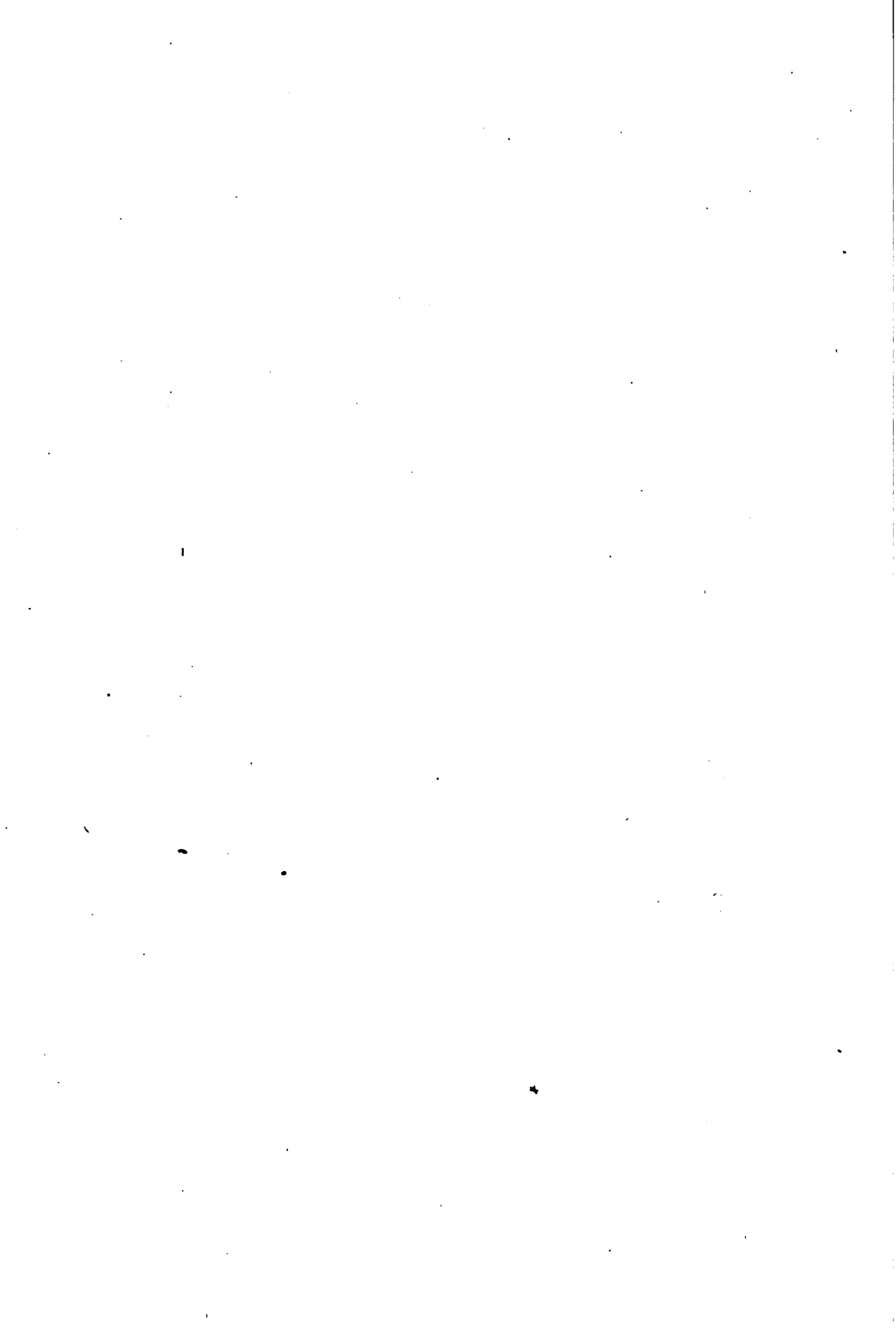
DIAGNOSIS.

The diagnosis is our opinion in regard to the nature of the disease. The diagnosis is said to be the true test of the physician, and doubtless it is, for we all stand on equal ground in regard to this point. It makes no difference about the school of practice. It has much to do with the prognosis, and I would have each one of you take pride in diagnosing every case that comes to your notice, satisfying yourself thoroughly in reference to the nature of the disease and the manner of its progress, so that you will be the better able to give a prognosis.

PROGNOSIS.

In treating chronic cases you will be asked how long the patient is going to live. That is what we call the prognosis, and unless you thoroughly understand the diagnosis it will be entirely out of the question to give an opinion in regard to the prognosis. There are a good many physicians I know who have succeeded in the practice of medicine without exercising exceeding care in diagnosis, that is, they have hesitated about naming the disease; they have complied with the wishes of the friends to some extent in giving a vague term or one which has not much meaning and can be used to indicate almost any disease. That is simply indolence on the part of the physician. I do not claim that you can tell in all cases, but in the vast majority of instances you ought to be able to tell just where the trouble is located, what organs are involved and what is the probable outcome, for your own satisfaction. Take the family whom you have treated for years and who have the utmost confidence in you—they are not so exceedingly particular about these matters, for they know the doctor will cure them. If it is cough, for instance, learn where the trouble is located, whether it began in the bronchial tubes, or whether it was a case of croupous pneumonia originally, and the bronchitis came second; and whether there is any tubercular trouble. That is a question you will have to study, for if it became tubercular later you would be censured by the entire family, but if the case recovered there would be very few questions asked. I know how difficult it is if a physician is very busy or has been riding all day, possibly without





any dinner, and is called to a case for the first time. It may be five miles from home and a case that requires considerable time to investigate. Ordinarily you can postpone your investigation, but many times they demand it at once, and to sit down and investigate that case and give an opinion, requires a great deal of sacrifice on your part. Here is where many make the mistake. They are in such a great hurry and think it does not matter much, so they give a hasty opinion, that may eventually cause them a loss of reputation in that vicinity, for if the examination is not satisfactory someone else who happens along next day is called in; he sits down and finds out what the trouble is. It may be a case of carcinoma of the pylorus which can be felt, and you have simply enquired the symptoms and made no physical examination at all. I say, never give an opinion unless you are thoroughly satisfied yourself. We find people who deceive us in regard to this, and it takes all kinds of methods to get at the truth. Some people will endeavor to deceive us in regard to hemorrhage. We ask them if they have ever spit up any blood, and they say they have a little, but not to amount to anything, and they endeavor to throw us off the track in regard to other symptoms, so we have to depend on some one else for information.

The prognosis is quite as important to the patient as the diagnosis. A physician's reputation depends as much upon the prognosis as upon the diagnosis in many cases. It requires some skill in many cases to give a correct prognosis. I would say that the safer plan would be to say as little as possible in regard to the prognosis until you are absolutely positive. Do not go into detail and say, "If this happens, or that occurs, the patient will probably get well," placing the family and possibly the patient, in a position to watch for something that may not come. Say, "The probabilities are that you will recover." But you cannot always tell the patient that. That is a very important matter, and it requires a great deal of skill on the part of the physician to decide how much the patient should know. My rule is if the case is absolutely incurable to tell the patient. I think it is my duty. Sometimes the family object, but I try to overcome this objection and say to them, "Supposing you were the patient. I know that if I were in that position I would censure the physician very much if he did not tell me I was going to die." I have been sorry I failed to do it a great many times when the family have kept me back, but I have usually had my way. If it is a case where there is a ray of hope and you are liable to destroy that ray of hope and take the last chance away from the patient by telling him that he is going to die, do not do it. People have an idea that the physician ought to know a great

deal more than he does in regard to the prognosis. There are many cases of disease in which the disease comes to a crisis, and I do not believe any human being can tell which way it is going. You may have an idea that that patient is going to get well, but you cannot explain it on any reasonable ground. I have had the feeling many times that the patient would pull through, but I could not explain it to any one, and in such cases, I would be exceedingly careful about making a prognosis. I have heard of such cases a great many times where the physician has said, "I have no doubt that the patient will recover," or "I feel as though that patient will get well," and possibly within the next twenty-four hours that patient has died.

The most notable case is that of the President. You know how optimistic the physicians were in regard to that case. In a case of that kind the physicians and surgeons should have laid down a rule that for two weeks they would not decide positively. Now just imagine how much better Dr. McBurney would stand in the opinion of the American people if he had said on Wednesday to the Vice-President, "You had better remain here for a week or ten days longer; these cases are not safe until two weeks have elapsed," and thus saved all that terrible distress which followed. The anxiety was great in any event. Here meetings of thanksgiving were held on the very day that the relapse occurred.

It may be in your private practice that you are called ten miles from home to see for the first time a wealthy individual, and you say, "This man is entirely out of danger;" the next morning a messenger comes saying he is dead. It makes no difference what the trouble was, whether typhoid fever or pneumonia, how much better it would have been if you had said, "He is a very sick man and the crisis is not past. I cannot say what the outcome will be." Then your reputation would not have suffered. This reputation is your livelihood. That is why your prognosis should be guarded until you are absolutely positive. In a case of serious illness never state without some proviso. Say, for instance, "He is a very sick man. I do not know whether he will recover or not, I would not be positive." Your opinion cannot be positive in a case of that kind and the least said, the better, ordinarily. If there is some member of the family upon whom you can depend, you can tell him the position, providing, of course, he will keep it away from the patient. If you are fortunate enough to have a good nurse, you can talk to her in regard to the case, but do not attempt to explain to people generally. We have not the difficulty in the city that we have in the country. A physician practicing in the country must stop and explain to almost every one the nature of the case and the prob-

able outcome. In many cases some distance from home I would frame out the sentence that I was to use and would tell every man the same words, otherwise they would get together and compare notes.

DEATH.

That which we as physicians desire to postpone and avoid—both for ourselves and our patients, is death. Death is the cessation of all functional activity. It may come in various ways. First, it may be the result of failure of nutrition. This is probable the most common cause. We have to take a certain amount of food. Certain kinds of food have to be supplied continuously and regularly to keep the system in good condition. A person can live on the surplus for a considerable length of time. Dr. Tanner fasted forty days, and we have cases of fever and lingering sickness where patients live with scarcely any food at all for nearly that length of time. A person in health can live longer without food, than a person who is sick, because there is not so much destruction going on. Fever is destructive and consequently it increases the amount of destruction over that which would be in a case without any such condition. I think there is a general tendency on the part of the public to imagine that a patient is in danger if he goes without food for a few days. The minor ailments of digestion can be cured by simple abstinence, or possibly taking just a few ounces or drachms of some liquid food. It is not necessary that a person should at every meal take a certain amount of food. I have many times myself, when suffering from a severe attack of indigestion or possibly some other derangement of the alimentary canal, gone for twenty-four hours without taking anything into the stomach and I felt better for it.

In the western part of Pennsylvania there is a class of people who practice going without breakfast. That was taught by someone in England. Many of them send their children to school without breakfast with no serious detriment. If the child needed food, I think it would be a crime to send him to school without it, but at the same time no serious detriment has come to these people who habitually go without breakfast. Yet we have people who think it is almost a sin to go without a meal. I speak of this to show that a person can go without a meal, or possibly two or three meals and still keep about his business, and it may be all that he will require, and there are many cases where it is absolutely necessary that they do this.

We were talking about causes of death, saying something in reference to the failure of nutrition as a cause of death. This failure

may be due either to lack of supply or a difficulty of appropriating that supply—digesting and assimilating it. The difficulty of digestion may be due to some impairment of a certain viscus or viscera, whereby the food passes on without being appropriated. We frequently find an increased peristaltic action, and the food passes in an undigested form, that is, it does not remain long enough in the alimentary canal to be properly cared for and the nutritious portion appropriated. It is true that we may have a great many mechanical causes which interfere with this, even if the food is properly digested. We may have some obstruction, some pressure upon the thoracic duct perhaps, or some interference in the mesenteric glands or at any point from the time the food enters the system through the mouth to the remotest extremity of the alimentary canal; there may be some obstruction which will interfere with the entrance of the nutritious portion of the food into the circulation. The secretions may be at fault, so that they render the food valueless as a supporter of life. All these various phases enter into the consideration of a case of that kind.

Mental states have very much to do with digestion and assimilation. This is one of the difficulties we have to contend with. No matter what the character of food, what the occupation, what the care that the patient is surrounded with if there is some mental derangement or a sufficient amount of impairment of mental function, nutrition will be impaired; food will not be digested, or if digested in part, it will not be properly assimilated, and there may be a predisposing cause of disease on account of this condition. Death may be produced by failure of the circulation. This may come on suddenly or slowly; suddenly—when we have the bursting of an aneurism, or possibly cardiac thrombosis. This is an exceedingly uncommon cause of death. The heart ceases to beat for a short space of time,—long enough for the blood to coagulate in some cavity of the heart, generally the right ventricle. This cavity is not as vigorous as the left; the walls of the right ventricle are frequently attenuated, and it is here that we find the ante-mortem clot most frequently. I would advise you in all cases of sudden death after a long sickness, such as tuberculosis, where the patient having been as well as usual, sits up, faints, finally becomes cyanotic and dies, to examine the heart and you will find a faded-out clot of blood in the right side which indicates that it was ante-mortem. The post-mortem clot is of a dark color, and the ante-mortem clot varies in color from white to yellow. It may be altogether fibrinous—its color white, or it may present the appearance of fat, as described by one author very correctly, like the fat of a goose. I have seen a clot of that kind clinging to the walls of the right ventricle which

looked as though it was a part of the wall,—a fatty degeneration,—but by a little manipulation it could be separated from the endocardium and show its true character. We get in certain conditions a predisposition to that sort of thing. We find in the puerperal state a tendency to the coagulation of blood, so that quite a number of cases dying suddenly in the puerperal state have this as a cause. I never saw but one case of that kind. After instrumental delivery, the patient had the head slightly elevated, while the placenta was being removed, and she complained of difficulty of breathing and wanted the window open. I looked at her and found that she was very pale. Everything was removed from beneath her head and she was laid down flatly. I found the pulse quite irregular. She lived probably twenty-four hours, and we found an ante-mortem clot. In some of the serious infectious diseases, as scarlet fever, diphtheria and small-pox there is a tendency to coagulation of the blood, and they frequently die in that way, especially where the patient is very much reduced.

The circulation may become impaired gradually. This is true in all organic affections of the heart, and we have in long continued illness an atrophy of the heart. This is not sufficiently considered in relation to the cause of death. For instance, the heart of a man who has lost one-third of his weight becomes as small as the heart of a child, and fully as weak, and it does not require a great deal to stop the beat of that heart; a sudden shock of any kind would affect it, so that must be taken into consideration. Suppose a man had been in bed for a considerable time and it was necessary to have some operation; the danger is very much increased on account of the change which the muscles of the heart have undergone.

We may have death coming indirectly from the failure of circulation in a certain part. We may have a clot of blood in the brain, so that the circulation of that part is disturbed, and indirectly acts as a cause of death by paralysis. You may have a blocking up of the circulation in any organ, or possibly a constriction of some kind interfering with the circulation of a large vessel, the spleen, kidney, liver, or the heart itself when the coronary arteries become so thickened that they fail to supply the heart muscle with a sufficient amount of blood, and as a consequence we get angina pectoris and very sudden death from that cause.

Death may come from failure of respiration. This may be sudden or it may come on gradually. This is one of the prominent causes of death in acute diseases. Cyanosis occurs in membranous croup, diphtheria and bronchitis, where there is some obstruction to the

entrance of the air into the lungs. The system becomes loaded with non-arterialized blood, and consequently we get blueness of the integument everywhere; this condition must be relieved in a very short space of time or death will follow. You have some pressure upon the tract, as for instance, a gland may become diseased, hypertrophied, and gradually in this way develop the condition which I have described. Stangulation is a cause of death and acts in this way however it is produced.

Again we may have as a cause of death a failure to eliminate the poisonous matters within the system. It is necessary that these should be carried off by one method or another. Urea must be carried off, or we have uræmia as a direct cause of death. When the kidneys fail to perform their function, as in cirrhosis or other diseases of the liver, we frequently have an accumulation of bile in the system. This is not as dangerous as urea. A patient can be jaundiced a long time without being in any immediate danger, but a large accumulation of urea in the system produces disastrous results in a short time. This, however, does not come suddenly. A patient may have uræmia for weeks or months, the kidneys performing their function in part, or possibly the alimentary canal, the skin or lungs carrying off a portion of this poison. We frequently ameliorate these symptoms by the administration of some drug which will act in these or other directions—something which will produce profuse perspiration, or will carry it off by the alimentary canal.

Carbonic acid affects the system very seriously. This is the way we get death in some cases. Take a case of capillary bronchitis if it is at all extensive, and you will find the child blue and cyanotic in consequence of the failure of oxygen to enter and the failure of elimination of carbonic acid from the lung. This cannot continue very long providing it is anywhere near complete, but in many cases we have only a partial interference and then this may continue for some time without producing death.

The failure of the nervous system may cause death very suddenly or it may come on gradually. Fracture of the skull may interfere perhaps totally with the function of the brain. You may get paralysis. The injury may be lower down and you get a cutting off to a large extent of the nerve force supplied to the lower extremities, which may be the cause of death eventually. If paralysis is complete in any part death must result in that part. The circulation cannot be carried on in any part which is partially paralyzed, so the extremity may be lost in consequence of this injury or impairment of the function of the nerve. This, too, may be effected in various ways. It is through the



medium of the nervous system that digestion frequently becomes impaired, and this mental condition often affects other parts as well, the circulation for instance. The heart's action may be interfered with; in fact, there is scarcely any function of the body that cannot be very much affected by conditions of the mind. All these causes may act together in some cases. Take a case of protracted sickness, a case of pneumonia; frequently you have an accumulation within the system of carbonic acid, you have non-elimination of that poison, you have impairment of respiration and of the circulation as well, and finally a failure of the nervous centers to act, in consequence of this general poisoning of the system.

It is quite interesting to know the manner in which death comes, and I like to satisfy myself in any case of that kind just how that was brought about if I can. Frequently we find a case in which the prognosis has been favorable up to a certain time, and then there comes a change, and the question is, what changed the prognosis from favorable to unfavorable in the course of twenty-four hours? It is not always an easy matter to determine that, but by examining the patient from time to time we generally arrive at some conclusion in regard to the manner in which death was produced. It may be something which might have been unavoidably overlooked, or it may be something which came suddenly. In the case of the young practitioner it is exceedingly important that a post-mortem should be held when possible. There is scarcely a post-mortem that does not throw a light upon the case that was not discovered before, although you may be pretty positive in regard to it. This makes a fact out of that which seemed a theory. I think there is a tendency on the part of the profession to overlook these matters. There are not as many post-mortems held to-day in general practice as there were twenty-five years ago, and it is a pretty difficult matter to get a post-mortem at the present time, unless the patient has had some obscure disease.

It is utterly impossible to get a post-mortem in a case of tuberculosis, no matter how suddenly death came. In cases that die suddenly it is exceedingly important to know just what the cause was. A case in point illustrates more forcibly than I can otherwise. I had a case of typhoid fever, going on in the usual course, exceedingly sick, and convalescent at the end of twenty-one days. He was very much reduced, and was taking only a small portion of food, as I directed. He was living about five miles from my office, and I received a telephone message one morning, saying that the boy was vomiting. I was detained and arrived there about three hours later, and found that it was a serious matter. The boy was pale, the pulse

was weak and he was nauseated all the time, but thoroughly conscious. I noted more tenderness of the abdomen than there had been, but no fever. I could not understand why this vomiting should have come on and told them that I could not explain it. I prescribed probably lpecac, and requested them to call me again, which they did that evening, and I found him in about the same condition. There might have been a little more tympanitis, but very little. I could not explain any more than I could in the morning the cause of the vomiting. The next morning I was called, but before I got there the boy was dead. The family, of course, was not exactly satisfied; I was not satisfied myself and I told them so, and that I could not explain the cause of death. The vomiting had not been stercoraceous at any time. I spent considerable time trying to persuade those people to have a post-mortem, and they finally consented. The gentleman said, "Would you object to having another physician here?" I said, "No." I did not know who was going to be present until I reached there. I held a post-mortem that evening with the other gentleman who had been notified by the father, a physician of good reputation in the other school, and we found the most perfect case of intussusception I ever saw, the bowels completely blocked. I have seen one case since in typhoid fever in the convalescent stage, the patient dying in the same way. I did not suspect that it was possible for intussusception to take place in a bowel as flaccid as in that case. The family was satisfied, and the physician too, for it showed that nothing could have saved him, even an operation would have been surely fatal. I know very well that the family would have thought, had we not had the post-mortem, that I had not done my duty and should have prevented the trouble.

TREATMENT.

The methods of treating disease may be divided into two classes, palliative and curative. You will recognize that there are many diseases which, by their very nature, are incurable; diseases of such a character that the destruction which follows them cannot be remedied, and the most that we can do is sustain life as long as possible and make the patient as comfortable as we can. Curable diseases frequently reach a point where a cure is out of the question, and means must be resorted to, to relieve the patient's pain and make the balance of his or her life as endurable as possible. I mention among the first class, malignant diseases, tuberculosis, the various degenerations and the mechanical changes which take place in organs and viscera, such as valvular disease or fatty degeneration of the heart. Then we have

diseases which take a specific course despite all efforts to prevent it, such as cirrhosis of the liver, which may require years to produce death, but keeps right on its course, first enlarging the liver and then contracting it, until finally it becomes useless. Bright's disease is of this character, and to a large extent chronic disease is incurable, and the most we can do is to alleviate the symptoms. In malignant disease, the patient may be relieved, but as a rule it returns. Tuberculosis rarely exists without destruction. This may be so small a part of the lung as not to interfere materially with the comfort of the patient, and he may live for years, but the part is usually destroyed by a process of degeneration, and the most we can do in such cases is to palliate and relieve.

The various means of palliation which have been used should receive consideration. Prominent among these is Opium in one form or another. In speaking of this drug, I realize that we need to be extremely cautious, for the misuse of it is almost as common as its legitimate use. Not only is this due to fault on the part of physicians, but to its use for purposes other than the relief of pain. The physician must be extremely cautious not to use it for trivial cause or for transitory pain, but there are cases in which it is the bounden duty of the physician to prescribe it. Examples of this are found in cases of mechanical injury, which, though properly in the domain of the surgeon, the physician will often be first called upon to treat. One who has the power of relieving intense agony in a short time should do so, and nothing will do it as well as an opiate. Many times when nausea and vomiting are present, it is necessary to administer this drug by hypodermic injection. The syringe should be well cared for and the valves kept moistened. Syringes in which the valve can be regulated are to be preferred. Never administer more than one-quarter grain to an adult, unless you are personally acquainted with the patient and know that he has been in the habit of using the drug. In anæmic individuals, or feeble patients, one-half of this dose will be plenty. The dose should not ordinarily be repeated in less than three hours, if at all, and then the rule should be to administer half-doses. The syringe should be inserted at the lower attachment of the deltoid muscle as you will have here few vessels to interfere. The injection should be gradually made, about one-fourth of the quantity being injected at each time, with intervals of a few seconds between them. Be careful that none escapes after the removal of the syringe. There are diseased conditions, such as the passage of biliary or urinary calculi, which will require the use of this drug. It aids in the propulsion of the stone along the duct. It is not well to repeat

a dose more than once. Two doses should generally be the limit within twelve hours. Be careful about administering this drug to persons of nervous temperament, as they are more liable to become seriously injured by it. Its use develops a peculiar sensitiveness of the nerves. Persons who are accustomed to the excessive use of stimulants can, as a rule, take more than others without detriment. We sometimes use suppositories of Opium when it cannot be taken any other way. Suppositories of one-half grain, or, in some cases, one grain, can be used under the same regulations as noted. Allow these to be administered by only the nurse at intervals between your visits, then the directions should be made in writing and every possible precaution taken to avoid mistakes. Explanation of the method of administration should be made to the nurse, to the patient, if able to understand, and to any friend who may be present. This is the only safe way.

There are other local means of treatment, of which perhaps none are more common than poultices for the application of heat. Their common ingredients are pulverized slippery elm bark, flax-seed meal, and various other things which will answer a similar purpose. The poultice should be retained for at least half an hour and should be as warm as the patient can comfortably endure it. This can be changed every half-hour, hour, or two hours, with as little exposure of the part as possible. Do not remove the old poultice without having the new one at hand, ready to replace it. The common hot water bag is a good thing for the alleviation of many troubles. It is almost too heavy, when full, for abdominal application, and if so used, the quantity is to be lessened. I prefer for abdominal application, a poultice of slippery elm of reasonable thickness, say not more than one-half or three-quarters of an inch thick. This makes an extremely light poultice. The poultice should be kept covered with oiled silk or rubber, to keep the clothing free from moisture. Poultices should not be of such consistency as to run, but pasty enough to be comfortable. These are minor matters, but it will frequently be necessary to give minute instructions in matters of this kind.

Water can be used with benefit, and is one of the most common means of relief. We use cold water in severe cases of inflammation. Ice or ice water is good in some cases, such as spinal meningitis, but its use must be continued for some considerable length of time. When its use becomes painful, discontinue it. Ordinarily I would not use ice water for a temperature below 102 degrees, but there will be no danger in its use above that point. I have used ice bags on the head in meningitis continuously for forty-eight hours, but in ordinary inflammations I prefer to use water. I have used a rubber bag filled

with ice water, placed along the spine, in case of meningitis for longer than forty-eight hours, and then gradually increased the temperature of the water until the normal point was reached in the course of six hours. Do not make a sudden change. In sub-acute inflammations, water as hot as can be endured, is frequently used. Showering is sometimes of benefit in diseases of the extremities, using first cold water for five minutes, then hot water for five minutes, and thus alternating, or hot water alone can be used if the cold water is painful. I use in neuralgias of the extremities, hot water twice daily for quite a number of days, and the patient generally experiences immediate relief.

In the use of remedies, before the introduction of Homeopathy, the physicians depended upon experiment and statistics, or rather upon the experience of others in the treatment, of the sick, for the means which they were to use. The discovery of Hahnemann taught that we could learn the effects of remedies by using them upon the healthy. This plan is now followed by all of the schools to a greater or less extent. We study the pathogenesis of a drug, and then apply it. The remedies which act upon the affected part constitute the class of remedies from which the selection is made, and the individual remedy of this class whose symptoms are most similar to those of the case, is selected. If the dose given is too large, you will only aggravate the existing trouble. The nearer you come to the *similimum* in prescribing, the smaller the required dose. The best Allopathic physicians are now in the habit of individualizing. They treat the patient instead of the disease, and use the pathogenesis of the drug, just as we do. The pathology of the case leads us to the choice of the class of remedies, and the symptoms lead us to the selection of the single remedy of the class which is used.

CHAPTER II.

FEVERS.

INFLAMMATION.

Inflammation may be described as referring to the succession of changes which take place in a part whose vitality has become impaired. It is the result of direct or indirect irritation. The changes occurring in inflammation do not differ materially in some respects from the changes which take place in health. The ordinary method of nourishing a part partakes somewhat of the characteristics which we see in inflammation. In other words, the best nourished part has the best supply of blood, and as the supply increases, the development of the part increases. In inflammation we get an excessive supply of blood, and an increased development which is abnormal. We find that the changes which take place in inflammation refer (1) to the condition of the blood vessels, (2) to the condition of the blood itself, and (3) to the condition of the tissues which are inflamed. The changes occurring in the blood vessels are pretty well marked, and you have doubtless seen such cases. Some claim there is contraction of the vessels prior to the dilatation, and others claim that this is only true in certain cases, while still others do not mention it.

Dilatation certainly takes place, and the parts become enlarged—arteries, capillaries, and veins. The increased blood supply produces the heat and dryness which are common to this condition. We also notice changes in the blood itself. The blood current becomes slower, the white corpuscles accumulate on the sides of the vessels, then we get the escape of the contents of the vessels, the liquor sanguinis and white corpuscles, the latter constituting the cells found in the diseased tissues, and, in the more severe inflammations, we get the escape of the red corpuscles. This escape produces the swelling, and you may judge of the amount of the inflammation by the extent of the swelling. This is somewhat dependent upon the laxity of the tissue involved, being great in such places as the scrotum, and small in such places as the periosteum. Some structures are so dense that these

changes can be observed only in their surrounding,—the cornea is an example of this. The more acute the inflammation, the more liable we are to get destructive changes. The pain of inflammation depends upon pressure upon nerves and intensity of the inflammation, together with the character of the tissue involved. Examples of the intense pain accompanying inflammation of dense tissues are found in felons or inflammation of the tooth-pulp. In cases of injury, the intensity of the pain will act as the best guide to its treatment. If severe pain continues to be felt after the dressing of a fracture, you may rest assured that something is wrong. Results of inflammation are (1) resolution, (2) gangrene, or (3) the production of adhesion or induration.

Suppuration is a common result of inflammation and consists of a change in the deposit of a vessel. Pus is formed, and inclines to destroy the part, travelling by the easiest route and destroying the softest and most easily dissolved tissues. It burrows, passing between muscles, periosteum and surrounding structures. If beneath the periosteum and unable to burrow through, it moves upward and severs the connection between the periosteum and the bone, thus producing caries or necrosis,—destruction of the bone. Another danger from pus is absorption followed by abscesses at remote parts,—Pyæmia. A product of inflammation is often adhesion, sometimes injurious to the part and at other times not affecting it very much. Pleurisy may result in adhesion, and the patient's breathing may be hindered thereafter.

FEVER.

Fever may be defined as a disease of the whole system, characterized by elevation of temperature and increase of heart's action. Of course this definition is subject to some exceptions, as are all definitions. For instance, we occasionally have an elevation of temperature without any variation of pulse. This is the case in many malarial fevers. In the malarial cachexia we occasionally find a pulse that is normal or below, with a temperature of 101 or 102 degrees, and that is the difference between this form of fever and many others. In hectic fever the pulse is usually more frequent in proportion to the temperature. Ordinarily we expect the temperature to correspond with the pulse in the changes which the fever brings about,—about ten beats of the pulse is equivalent to a change of one degree of temperature.

To go back to the cause of fever, this is something which we have difficulty in learning. We know there are certain local conditions that develop fever; we know that with the changes that go on in sup-

puration we get a fever which we term hectic, then come the various local causes which produce fever chiefly upon some limited region. In typhoid fever we find the local changes so characteristic of that disease in the ileocecal region; just how that produces this general fever is difficult to explain. We know the nerve centers have something to do with keeping up the heat of the body and distributing it, but it is through the medium of the circulation that it is largely done. We find the greater the supply of blood, as a rule, the greater the warmth in a particular part. If the circulation is defective there is coldness. We find in anæmic individuals but a small amount of heat-producing property.

The vital cause, the cause which acts as a foundation for producing these changes, is something which we do not thoroughly understand.

Fevers have received different names, according to their character. An intermitting fever is one in which there is an interval of health between the paroxysms,—where the temperature and pulse become normal for a time. Frequently this is regular, that is, it occurs at a certain time each day. This is characteristic of or at least is common to—the malarial fevers. Septic fevers are sometimes intermitting, also. A remitting fever is one in which there is a variation of temperature without complete absence of fever, in which the variation is greater than two degrees. You understand that in health there is a variation of one degree allowed. We say that the normal temperature is 98.4 to 98.6. The temperature is slightly increased in the evening. It is varied somewhat by all the conditions which vary the pulse, but not to the extent that the pulse varies, so that from 98 to 99 may be called a normal temperature. A continued fever must have at least this normal variation, so that there is no such thing as steady temperature. A fever which shows no greater variation than two degrees in twenty-four hours is called a continued fever while a fever which shows a greater variation is termed a remitting fever. You can understand that we cannot draw the line very closely in some cases. Ordinarily a remitting fever does not continue long with this slight variation. It is only for a limited period of time. In a few days we get a greater variation than two degrees, while a continued fever lasts for weeks perhaps with very little more variation than that. We find, for instance, as continued fevers, typhoid, eruptive fevers and occasionally malarial fever, but this is somewhat rare.

The thermometer is used as a guide to the amount of fever at the present time. I practiced some ten years before the thermometer

came into use, and we depended then altogether on the pulse. We knew more about it then than we do now, because at the present time we depend so much on the thermometer. It is, I think, quite important that the pulse should be examined at least once daily. The physician should examine the pulse at every visit, no matter whether it is taken by the nurse or not. You can learn much by the pulse. A pulse may be full, indicating strength of the heart's action. If it is soft it shows that the heart is bounding and although there is considerable effort made by nature to carry on circulation it is not as effective as it should be. The healthy pulse is full, *strong* and *regular*. The volume is sufficient to be detected at any point where the artery comes near the surface, and one beat is like another. If we get loss of rhythm it indicates that either the circulatory power is deficient on account of some defect of structure, or else the arteries which supply this are deficient. We get in cardiac disease very frequently, a condition in which two or three beats will be uniform, and then come several beats which are much more feeble and lack rhythm. The pulse, of course, is compressible. It can be compressed by the finger, and where this is less firm than usual we term it a compressible pulse. We get this in all cases where there is loss of strength, as after long continued illness. The artery can be very easily compressed and the circulation stopped. To do this you place several fingers on the radial artery and then compress with the finger nearest the elbow and cut off the circulation. In this way you can determine the volume of the pulse and the variation of it. A small pulse is one in which the artery does not fill perfectly. We get this frequently in diseases of the nerve centers and brain, and thus it is that we find a hard pulse, where the pulse is small and wiry; the volume of the artery is contracted and there is considerable force, but no fullness. It is not necessary to remember all these variations if you remember that the healthy pulse is full, strong and regular, and not too frequent. Any variation from that would indicate some defect. You are liable to be misled by the pulse in regard to frequency. In nervous conditions in health you frequently find the pulse exceedingly rapid. The excitement of the first examination in your office increases the frequency of the pulse and you suspect perhaps on account of the frequent pulse and the flushed face that the patient has considerable fever. The temperature can be taken and that will determine whether there is fever or not. Again, the pulse may be so slow that you do not think it necessary to take the temperature. Possibly the patient may have a slow pulse, the skin being moderately cool, and the tongue perhaps moist, and you say, "There can be no fever here;" that may possibly be a case

of masked malarial fever and the pulse did not indicate that the patient had fever. We could not tell much about these cases of dumb ague before we used a thermometer. Many of them would have general indications of fever; there would be loss of strength, flesh and appetite, constipation, and perhaps some jaundice, and in some cases we would have dry tongue; all this would not be indicated by the pulse. Since the use of the thermometer we have no difficulty in such cases for it shows that we have an elevation of temperature, that there is internal fever which is not manifest in the usual way.

The ordinary thermometer gives you the temperature in one minute. The first thermometers were not self-registering and we had to examine them while they were in the mouth. It was with considerable difficulty that we could get the temperature and it required at least five minutes, and the self-registering thermometers we had for years took four or five minutes to secure the proper temperature. It is a very simple thing to take the temperature, but I find some to-day who have had considerable experience who are not as careful as they should be. The thermometer should be placed in the mouth a sufficient distance so that it will be thoroughly covered, and so that it will be surrounded by all the structures of the mouth. A great many place the thermometer just within the lips, and it seems to me that it is not satisfactory. I think the thermometer should be placed obliquely under the tongue, so that at least one-half of it is enclosed by the lips. We should be very positive that the mercury is carried down below the normal point before using it. I do not often leave a thermometer in a patient's room, except in cases where there is a person who knows something about it. The temperature should be taken ordinarily about twice in twenty-four hours. It is the general custom to take the temperature and pulse at the same time. If you have a case that you suspect is intermitting and you want to know when the aggravation occurs, it is well to take the temperature more frequently,—once in six hours, or possibly every three hours. In intermitting fever the fever may be absent for twelve hours and the temperature normal, then you should have it taken every six hours. In cases of sepsis we are exceedingly careful to find when the highest elevation occurs, and if in cases of malarial fever we are prescribing a remedy to be taken during the intermission we want to know when that intermission occurs, but I object to the worrying of the patient by taking the temperature as I have known it to be taken, every two or three hours continuously for weeks. In cases of continued fever twice a day is often enough, ordinarily. If there should be threatened collapse it would be well enough to vary the rule as indicated. The temperature

is usually taken in the mouth, under the tongue. It can be taken in the axilla, rectum, or vagina. The variation between the different points is not enough to amount to very much clinically. My rule is to take it in the mouth, except in cases of young children or nervous people.

There are some general conditions which we get in fever which tend to produce serious results. In fever there is a waste of tissue going on, and this waste is the cause of the emaciation. The higher the fever the more rapidly this degradation progresses. A temperature of 102 can be endured very much longer than a temperature of 104. A child can endure a temperature of 102 for twenty-four or forty-eight hours, and feel almost as well as ever the next day, but if that child had a temperature of 104 for forty-eight hours it would be very much weaker. If this child were weighed you would find a greater loss of flesh in that forty-eight hours when the fever was 104 than when it was 102. This waste must be carried off by the excretory organs.

We find in addition to the elevation of temperature a dry tongue, dryness of the mouth, and thirst. This is not always the case, but it is the rule. There is greater demand of course for fluid, on account of this internal heat, and consequently the desire of the patient is for something cold. Ordinarily this request can be granted, but if there is disturbance of the alimentary canal, nausea, vomiting, and diarrhoea, fluids should not be taken while cold.

I want to warn you about being deceived in taking the temperature by the mouth. If the patient has recently taken either cold or hot drinks it varies the temperature of the mouth. You can test this by holding moderately hot water in the mouth, and, using the thermometer, you will find the temperature one or two degrees higher. You must not fail to ask the question as to whether the patient has taken hot or cold drinks. I do not know that I told you about the case of a young woman, who when she was a student here had been accustomed to drinking very hot water. This is the method of treatment which is adopted by some physicians, and warm water is a good remedy in some cases, in reasonable amounts, as it aids digestion. It dilutes the fluids of the stomach, and is frequently of benefit. During her first year in college, she was under my treatment for a time, and I found that frequently her temperature was elevated. I could not understand it, because the other symptoms did not correspond. She came to my office one day and after taking water as hot as it could be borne, sipping it, her temperature ran up to nearly 104 degrees. This was a revelation to me. I could not believe that a patient could be

affected in that way, and it taught me that possibly a physician might be deceived. Supposing a man was drafted into military service and would use that means to deceive the physician. I have not tested as to whether ice water would lower the temperature, but of course it would to some extent.

The urine you find heavily loaded. There is a great deal of waste matter to be carried off, so that the specific gravity is increased. Occasionally on account of this condition of the kidneys they do not perform their work, the solids of the urine are greater than the fever would indicate and we find the perspiration loaded with effete matter. The breath is bad and contains more solid matter than usual. The mind becomes disturbed. The brain is improperly supplied with blood. We find that oxygenation of the blood is not going on properly and the nerve centers are incapable of performing their work, so that in many cases we get serious trouble from that cause alone.

There are various grades of fever. We use a good many terms in referring to them. Ordinary mild fever is one below 102. We call a fever high if it is above 105. I find quite a difference of opinion with reference to the highest temperature that a person can endure. I will state what I have stated before—that a temperature approximating 106 is a dangerous temperature at all times. I have known personally of but very few instances of recovery where the temperature was above 106. In my own practice I have not had a case where it reached 107 and the patient recovered. I have known of one case where the temperature was 107 and the patient recovered, but this temperature did not last for a very long time. That was a case of typho-malarial fever which came into the hospital. We read about cases where the temperature was 110 and upwards, but I am inclined to discredit this statement. Before death I have seen the temperature up to 110 or 112, and occasionally the temperature rises after death for a short time, that is, the burning process goes on for a certain time just as in an inanimate object being destroyed by fire.

Occasionally we find the temperature going down possibly to 97 and reaching that point daily. These people are below the average in health, but still are able to attend to their ordinary duties.

TYPHOID FEVER.

Typhoid fever is a disease which we are called upon to treat everywhere. It is endemic in the sections where you will probably practice, and it becomes epidemic in many instances. Typhoid fever is a disease to which everyone is liable, and is believed to be due to a

bacillus which lodges in the intestinal canal. It has been found in other locations but it is found chiefly in the glands of the intestines, and of these glands, Peyer's patches in the lower portion of the ileum are most frequently involved. It also affects the solitary glands of the cæcum and ascending colon, and the mesentery glands sometimes become enlarged. It prevails in this section throughout the whole year, but more particularly in the latter part of the Summer. The germ is transmitted by water more than in any other way. In this way large sections of the country become affected. A certain town had several sources of water supply, one from the river, one from a pond up on the hills, which was spring water, and artesian wells. From this pond upon the hill about one-third of the town was supplied, and in that section they had within three months about 150 cases of typhoid fever, which were extremely fatal. The other portion of the town suffered scarcely at all. We frequently read of our lake water being productive of typhoid fever. I do not believe it. If we had germs of typhoid in our lake water sufficient to develop the disease we would have 5,000 cases of the disease at a time. I believe that our water as far as this disease is concerned, is 100 per cent better than that taken from wells in some sections of the country. There is more typhoid in every other town in Northern Ohio in proportion to its size, than in the city of Cleveland.

In the Autumn following a large amount of malarial fever this disease prevails. In the section where I formerly practiced, we had malarial fever commencing along in June in a mild form. Later the cases became more severe and in August and September we would have had cases of typhoid. Whether the malarial condition predisposes to it I could not say, but this was true of every epidemic we had. Of course some of these cases of continued fever were not typhoid, but the great majority had the characteristics of this disease. Impure water from wells draining the surface will develop this disease and when it is once developed in a vicinity it is liable to spread contagion by the discharges from the intestinal tract. They were not careful enough about this. People are generally more watchful now than they were formerly, when very little care was used in the disposal of the excreta.

The glands which become involved in this trouble go through certain stages. The first is a stage of congestion or infiltration when we get an enormous swelling. I have passed my thumb and finger along the intestine of a case that died the first week, and it seemed as though the lower portion of the ileum was full of fecal matter but on cutting it open there was nothing but these enlarged Peyer's glands. Next

we got a stage of necrosis. The circulation is cut off from these vessels until the source of supply is absent, that is, the blood supply is not sufficient to keep alive the part, and it dies. Following that if the patient recovers we get a cicatrix. They do not always heal. Perhaps if it were not the excessive thickening we would get perforation more frequently. We do get perforation in some cases, and this is the cause of some of the sudden deaths occurring during the third week. A patient with typhoid fever cannot have hemorrhage or perforation in the first week, for during the first week you have only a swelling of the glands. During the second week we get necrosis and sloughing and in about three weeks we are liable to get hemorrhage, and possibly perforation. Accompanying an attack of typhoid fever we usually have diarrhoea, and a patient frequently does not fully recover. Then we find many of these cases suffering from chronic constipation and they have to be very careful about the diet. A great many of the soldiers who had typhoid during the Civil War are now suffering from chronic diarrhoea, that is, they have frequent attacks of it. It was just so in the late war. There may be contraction of the bowel, and there may be a section of the bowel in which the ordinary structure is destroyed. It cannot carry on the peristaltic effort which we expect of that muscle. When the perforation occurs the opening in the peritoneal layer is very small, as a rule, the contents of the bowel escaping into the peritoneal cavity. In the vast majority of cases we do not get ulceration. We simply have swelling of the glands, that swelling goes down, and the patient after three weeks is comparatively well. Then we have cases of slight ulceration and they recover in good time, but you take a case of typhoid in which you have diarrhoea for two weeks, and perhaps have hemorrhage during the third week, and it has to be handled with exceeding care or it will not recover. It takes weeks and months of careful management in a case of that kind to get your patient into any kind of condition. There is no disease which requires so much watchful care on the part of the physician and nurse as this disease.

The period of incubation of typhoid may be said to be from seven to twenty-one days, or ordinarily about two weeks, but I have seen cases where it seemed to me that the period of incubation had been longer than that. There is difficulty in arriving at this decision for the reason that we cannot easily tell when the disease began. This period of incubation is marked by a feeling of prostration, a tired feeling, as it is expressed. The patient feels disinclined to any mental or physical effort, has some slight rigors and feels as though he could not stand the cold as well as usual. His sleep is somewhat disturbed; he



dreams, and arises the next morning feeling prostrated and not relieved by his night's rest. Generally there is a feeling of despondency, a feeling of dread of some impending danger. Fear and despondency mark this stage. The appetite is somewhat impaired. The bowels are usually constipated, but occasionally a diarrhoea comes on, especially if the patient has taken a mild cathartic. There are many cases which are much aggravated by the taking of cathartics at this time, and the diarrhoea continues.

The onset of the disease so far as we are able to tell, is marked by some chilliness, not a distinct chill, as a rule,—not like the chill of pneumonia or any other inflammatory affection, but a continued feeling of coldness for some hours, and then there comes a fever which is characteristic. This is a continued fever, and the degree of variation in 24 hours does not ordinarily exceed two degrees, unless the disease is complicated with malaria, which is sometimes the case. In malarial districts we have a greater variation than this, but you take the disease as it prevails in the New England and Middle States and there is a variation of not more than two degrees in 24 hours. This variation corresponds to the variation that we get in health,—lower in the morning and higher in the evening, so that we have a temperature of 100 in the morning and 102 in the evening, and gradually increasing so that the end of the first week the fever has reached its height in many cases, and remains stationary during the second week. During the first week the pulse is comparatively strong. It is regular in the favorable cases, and corresponds to the temperature. It is not exceedingly rapid. We pay considerable attention to the pulse, as there is no disease in which the pulse is as good a guide. If the pulse during the first week ranges from 100 to 110 it is a moderate case, but if it reaches 120 during the first week we have a bad case, as a rule, unless the pulse is affected by some nervous condition. During the first week the temperature does not exceed 103 ordinarily. If it reaches 104 or possibly 105 it is a bad case. I have seen a case of typhoid with a temperature of 104 the first day. These are exceptional cases, and indicate severity. Diarrhoea during the first week not brought on by cathartics is a bad symptom. I would very much prefer that the bowels should be constipated at this time. This trouble gradually gets worse until we get into the third week, so that if we start in with a bad diarrhoea, which is bound to get worse in the second week, and possibly the third, we have a serious case. And so with fever. We expect a gradual increase during the first week, and sometimes the second. If it starts in at 103 or 104 the first day it is a bad case, for the reason that it gradually increases, and by the end of the first week

we have a very sick patient; but if it starts in at 101 or 102 and creeps up gradually, possibly by the end of the first week it does not exceed 103 or 104.

The skin is dry, with very little perspiration. We note perspiration with a great deal of satisfaction. If we have a moist skin by the end of the first week we look upon that as a favorable indication. I generally pass the tips of my fingers down the back of the neck for the purpose of discovering any perspiration. Ordinarily the skin is dry and incapable of performing its function properly, and the poisons which are usually eliminated by the skin are penned up in the system. The urine is scanty and heavily loaded with the ordinary solids. Occasionally we find, later on, some albumen. Then come the cerebral symptoms. We can tell something about the severity of the case by the mental symptoms the first week. Delirium is the rule. Occasionally delirium is quite active the first week. These are always bad cases. The patient who has to be restrained on account of active delirium the first week of typhoid fever usually dies, the fever running up to 105 or higher. Occasionally this is the first symptom known, no one being aware that the patient is sick, until the delirium comes on. We have had cases removed to the police station with the supposition that they had delirium tremens. Of course the thermometer was not used in such cases or it would have told the story. This delirium ordinarily is of a mild type during the first week. The patient is absent-minded, forgetful, and is not able to control his faculties. You ask him a question and if it can be answered in a monosyllable he will answer it correctly, but if he has to formulate a sentence he cannot do it.

Just a word in reference to the condition of the tongue. Such a patient will be unable to protrude the tongue readily. You ask him to let you see his tongue, and he will hesitate, and perhaps it will require a second command from you to have him protrude it, and then he gradually protrudes it and it trembles, or possibly the tip may catch upon the lower incisor and curl up, and with all the effort he can make he is unable to protrude it. When we get that symptom the first week it indicates severity, as it shows that the patient has not proper control of the muscular system. By the time we get into the second week we have the low muttering delirium and loss of consciousness. The patient will not be able to recognize anyone, or perhaps imagines that there are other persons in the room. He is filled with hallucinations and delusions; we have in connection with this a loss of control of the sphincters—involuntary discharges from the bladder and rectum, which continue until convalescence sets in. Sometimes the





patient has only partial loss of this control. If the nurse suggests that there should be a discharge of urine it will be done voluntarily. It is often the case that the patient will call for the bed-pan. but before the nurse is able to bring it there occurs involuntary evacuation, showing that the patient has some thought of it, but has not sufficient control to allow the nurse to make the proper preparation.

During the second week the symptoms generally are aggravated, the diarrhoea is worse, the delirium is much more active, the tongue has become more dry, and perhaps cracked, and the patient has lost all control of it; he does not comprehend what you say. The skin is extremely dry. We find tympanitis; there is distention of the abdomen, with pronounced resonance upon percussion; tenderness in the ileo-coecal region if the patient is conscious enough to feel anything.

We have appearing upon the skin in some cases a characteristic eruption. There are little circular elevations which are slightly reddened, which disappear upon pressure, but return immediately. Sometimes this eruption becomes darker. These spots appear in successive crops, first appearing upon the anterior surface of the abdomen, in the vicinity of the epigastric region and sometimes extending to the chest and occasionally to the posterior surface of the body. I would not have you depend upon this as a symptom characteristic of the disease, but its presence is of course confirmatory.

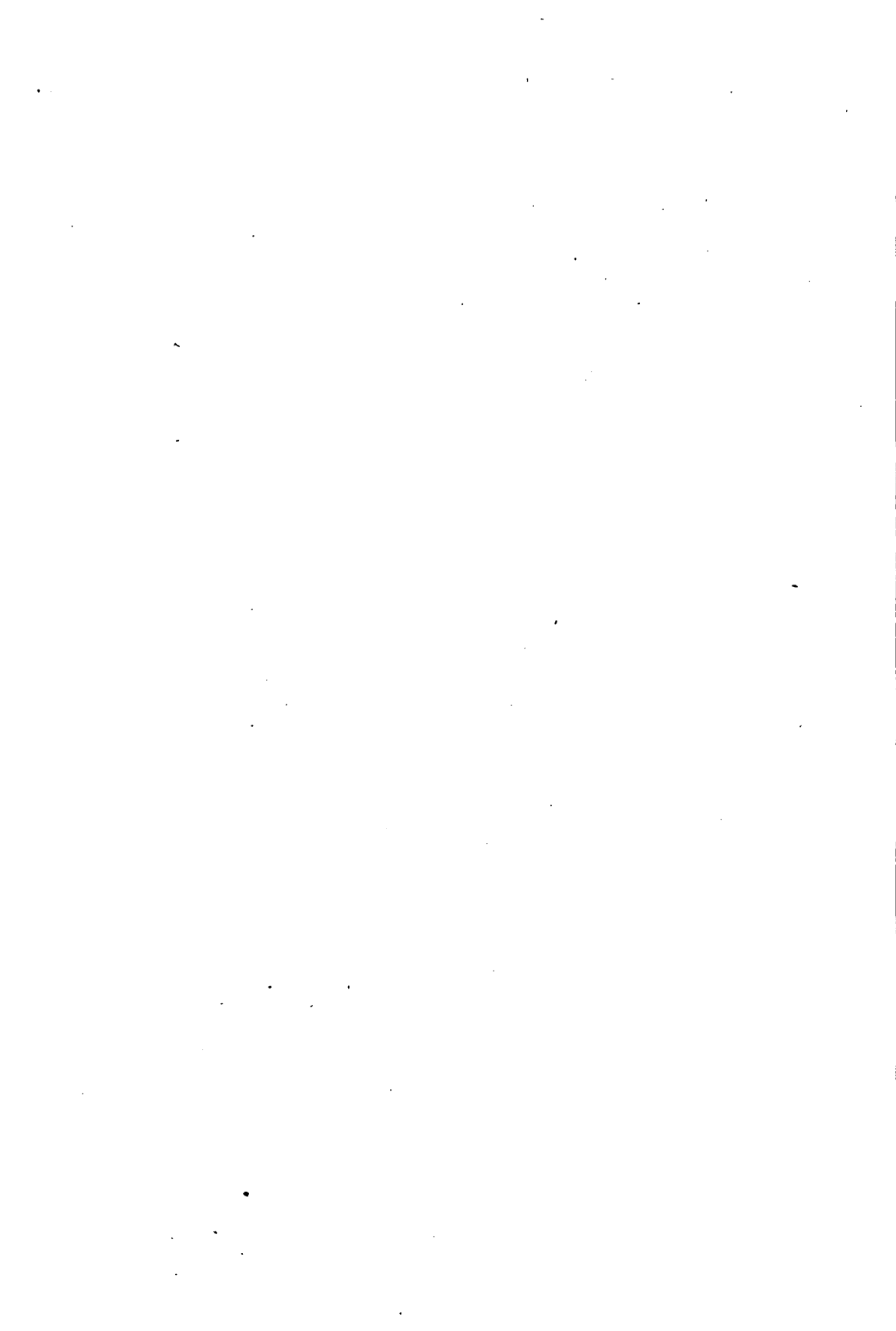
We have the usual symptoms which occur with patients who lie in bed a long time. There are spots upon the back, which, if not properly cared for, will become sores. The integument becomes reddened over the prominences. The patient becomes very much emaciated.

Then we go on to the third week. If there has been no variation up to this time, we do not expect very much in most cases until the last of the third week. In the great majority of the cases the patient shows slight improvement at the beginning of the third week, and then the fever goes down, so that by the 21st day it is about gone. We find the tongue becoming a little more moist. The pulse which perhaps has been dicrotic, so that a pulse which was 100 seemed to be 200, becomes more regular, and the patient has a little more control of bladder and rectum. Then too, he makes some inquiry in regard to his friends and is capable of recognizing his relations. He loses his hallucinations and delusions, and gradually the fever subsides. It makes a difference whether the temperature is 104 one day and the next day 103.6 or whether it is 102.2; the temperature goes down possibly one-fifth of a degree each day. Frequently the pulse

is taken at improper times, and I believe the physician should in every case of typhoid count the pulse and take the temperature daily, especially at the time it is highest, for it makes a difference whether the pulse is 115 or 120. Where it is an exceedingly important case I count the pulse for a full minute.

Frequently we have a bronchial irritation. We get occasionally, a pneumonia produced by hypostatic congestion. The patient lying on the back, the posterior part of the lung becomes congested and we notice there is something wrong with the patient's breathing; he is breathing more rapidly. We turn the patient over upon the side and place our phonendoscope at the back of the chest. This congestion goes on sometimes to a considerable extent unobserved. We hardly suspect anything of that kind, and yet it may be found to be the cause of death.

The third week is the week of ulceration. If the disease runs over three weeks without abatement it generally runs 28 days, and every case that runs beyond three weeks is a bad case. The great majority of cases that die, die during the latter part of the third week. If we do not get improvement by the twenty-first day it will run another week. It is very likely that we may have hemorrhage during the latter part of the third week and here comes the danger from perforation, which is not very frequent. Sometimes this hemorrhage is but slight. We are called to see a case and we find him pale and pulseless. We inquire about the evacuation of the bowels and find there has not been any for the past twelve hours; then we percuss along the cecum and ascending colon and we find a large mass of solid matter. We have a hemorrhage. Large clots of blood have not escaped. Usually this blood passes away gradually, and we imagine the hemorrhage is continuous. This is not the case. It takes two or three days to get rid of the blood even if there was no more blood passing into the bowel. The physician needs to be on his guard in reference to this and not imagine that there is a continuous flow of blood just because the patient is *passing* blood. Perforation of the bowel would be indicated by sudden collapse. This is not exceedingly common. It could not occur before the third week. It sometimes takes place in the fourth week in bad cases. This might be found in cases where the fever was not exceedingly high. I remember a case that I saw a number of years ago, which had a moderate remitting fever; the variation was greater than that of typhoid. He was not very sick, was not delirious, and was able to move about in bed, and would have sat up had he been allowed. In the latter part of the third week he was taken with serious symptoms. He went



into a state of collapse and died in the course of twenty-four hours, from perforation of the bowels. This was demonstrated by a post-mortem examination. That was an exceptional case. Usually perforation does not take place, except in bad cases, and when it occurs we get intense collapse and the patient usually dies within 24 hours.

The delirium during the third week is of the low, muttering type as a rule, the patient becoming more and more stupid and comatose, frequently dying in that condition, being unable to take any food or swallow scarcely anything at all.

It is a disease which is exceedingly difficult to diagnose at times. It may be mistaken for malaria. Probably the most positive method of deciding would be an examination of the blood for the presence of the plasmodium malarie, but that would not prove that you had a typhoid condition. You might be able to get typhoid germs as well, as we have recorded a large number of cases where both tests gave positive reaction. We had in the hospital a returned volunteer from the Spanish-American War in whom we found the tubercular bacilli, the plasmodium of malaria, and the bacillus of typhoid. It becomes quite important as regards prognosis to determine whether the patient is suffering during the first week from malaria or typhoid. It is probable that in many cases you will not be able to conduct a microscopic test; usually you have to depend upon the clinical history. We find in malarial cases that the patient is not much prostrated; that there is no tendency to variation in temperature and no tendency to diarrhoea; it will take ordinarily several days for us to be able to tell whether the case is one of typhoid or not. The tendency to tympanitis and possibly diarrhoea would aid us some in this direction. In regard to the tests of typhoid they are not as correct as those for malarial fever, while the blood test in malarial fever is pretty accurate. I had a case in the hospital last year, a young man who had had four weeks of fever, a week of convalescence, and three weeks more of relapse. The usual test did not prove he had typhoid. That demonstrated to me that we cannot depend upon the test altogether. We may have tubercular meningitis with continued fever. Acute tuberculosis may be taken for typhoid; and in such a case we find that the pulse was exceedingly rapid, that the fever was not quite as continuous, assuming more of a remitting character. Perspiration is usually present in all cases of tuberculosis at some period of the twenty-four hours. Puerperal fever is another disease which might be mistaken for typhoid. I have seen cases of typhoid fever coming on after delivery and taking the regular course. Of course the first thing we would think of would be a septic condition and

peritonitis, but there would be absence of the usual symptoms which accompany that disease. It is more common to find malarial fever occurring in childbirth than typhoid, but I have seen typhoid in a number of cases. We would very soon note the mental symptoms and absence of the usual symptoms which occur with puerperal peritonitis. There would not be tenderness over the uterus and abdomen generally, neither would we get as much tympanitis in typhoid as in these cases, and the fever ordinarily would not be as continued as in puerperal fever. Two or three days will tell the story ordinarily. In malarial districts you will find that it is rather common for women to have malarial fever after childbirth. I know how we watched over these cases in malarial districts with a great deal of anxiety for fear that the fever which the patient had was of septic origin. Malarial fever is a very mild affair compared with puerperal fever.

Pneumonia and bronchitis may be mistaken for typhoid. Bronchitis which is acute has well marked fever, but ordinarily we have less of the prostration, with the characteristic respiration. Pneumonia comes on with a well marked chill. There is none of the clouding of the intellect we got with typhoid. La grippe is a disease which would probably be taken for typhoid more than any other. This disease has been prevalent in this country since '89, and I have had a great deal of difficulty in distinguishing it from typhoid, but la grippe comes on more suddenly, as a rule. It has a well marked chill and generally more pain in the head, although this is sometimes the case with typhoid. The fever is continuous for several days. I have a case under treatment in which I was at a loss to determine whether it was la grippe or typhoid. The man was taken with a fever of 101.5; he was very much prostrated, and he had severe pain in the head. He had also pain in the bowels, with some tenderness. I saw him about three days ago. At the first visit his temperature was 101.5, the pulse corresponding. He had loss of appetite and constipation for some days; he was suffering from a headache which disturbed his mind somewhat. The next day his temperature had gone down to 100.5, and there was a little tendency towards perspiration; there was considerable tenderness of the abdomen; the headache was somewhat relieved, but he seemed to be very much prostrated for two days' sickness. His wife was worried and asked what I thought of the case. I said, "It looks like la grippe, but when a patient is taken with a fever and prostration you cannot always tell the first day or two what it is going to amount to." Yesterday his temperature was down to normal, the headache was relieved and the

symptoms had subsided generally. What I want to impress upon your mind is that you cannot expect to diagnose typhoid fever at the first visit. You should not attempt it, for you will find there are many cases in which the physician has to back down from his diagnosis.

Treatment.—There is no other disease in which so much depends upon the general management and diet as this, so that the treatment may be said to be largely what was formerly described as the expectant method, which is really a hygienic method. It would be utterly impossible to treat a bad case of typhoid successfully and feed the patient solid food, or if he was subject to diarrhoea and possibly hemorrhage, to allow him cold drinks freely. I know what I am talking about in regard to this disease because there has not been a year since I began the practice of medicine that I have not treated a number of cases, and I have gone through some serious epidemics of it. It is a fact that we have more typhoid in the country than in the city notwithstanding the crusade which has been carried on here against our city water. In the country the wells are shallow and they pay no attention to where they are dug; many are in close proximity to privy vaults. I have seen many a well in the midst of a cow yard. In small villages they have no means of caring for their sewage. There are many villages that depend upon some little brook for this purpose and in the Summer or Fall it is always dry, so that there is more typhoid, as no care is taken, and the disease spreads.

In the first place, a patient suffering from typhoid cannot be treated successfully unless he is put to bed, and a great many cases object to this. Do not allow anyone suspected of having this disease to continue about his business. It is a common thing during an epidemic of this sort to tell the patient, "You are running down, looking badly, and the best thing for you to do is to go to bed, because it is possible that you may be the next victim of the disease." The patient is put to bed and is kept in a room that has a temperature from 65 to 70, according to the degree of fever which he has, with just ordinary bed clothing—not more than usual; even a little less in some cases. The room should be properly ventilated, without any draught over the patient. You should be careful about the temperature at night as in houses with an independent fire in the room, the fire goes down. Cases stand a better show now than formerly, because we have on the average better nursing. It is much easier to practice medicine in larger cities than small towns because the nurse understands our directions and it is not necessary to give special

directions. You will not have professional nurses in a great many cases, so that you will have to be exceedingly careful about the heat of the room. There should be a thermometer and that should be consulted by the nurse or the one who has charge of the heating of the room.

The question of bathing is an important one. The cold bath was formerly used, and is to some extent now the main reliance of the dominant school. The Brand method consists of putting the patient in a cold bath of 65 to 70 degrees when the temperature of the patient is up to 102 and leaving him there 15 or 20 minutes. Formerly at the Lakeside Hospital, and some of the other hospitals of the city, the chief treatment was the cold bath. I do not see how the physician can manage the cold baths in all cases, as advocated. It is exceedingly difficult to carry out any such rule in private practice. I claim that the shock to the system overcomes any benefit which may be derived. You force the temperature down as suddenly as they do,—two, three, or four degrees in 20 minutes, and you shock the patient; the consequence is that it requires considerable time for that patient to rally. They condemned that treatment a couple of years ago at the Infirmary here. The patients would scream and would not submit to it, so that the other patients were aroused to such a degree of indignation that they would not have it. I have heard of placing patients who were almost moribund in the cold bath. At the close of the Spanish-American War there came to this city a large number of veterans, and they were divided pro rata among the hospitals, and no choice of cases was made. They all had fever, with very few exceptions. There was something over two hundred in each hospital. I do not know whether this appears in the statistics of the hospitals, but it is a fact that there were only two deaths in the Huron Street Hospital and nineteen in Lakeside, where they were all given the cold bath. My method is to give the patient a sponge bath of tepid water, taking only a portion of the body at a time, exposing only that part and sponging it, allowing the water to evaporate, and in that way I get considerable relief. This can be repeated once in three hours, but ordinarily I do not bathe the patient more than two or three times a day at the time the fever is highest. This is done in bed, with patient thoroughly protected by blankets so that the clothing does not become moistened.

There should be no visiting of these cases. You take a case of typhoid that is on the verge of delirium, scarcely realizing what is going on, it takes but very little excitement to send him over the border-line and he becomes actively delirious. Allow some one to come



in whom he has not seen for a long time and that person endeavors to have him recognize him and talks to him for a short time. I have seen instances where patients would talk about that person for days, so I say that there should be no company, and even the family should be excluded from the room. Have only one person in the room at a time, unless it is necessary for moving the patient, because anything of that kind disturbs him. These are minor things, but notice how such *little* things affect the patient. They are very much more important than they seem.

The diet is most important in typhoid fever. The patient who has no trouble with the stomach or bowels, no colic or diarrhœa and very little tympanitis can be fed ordinary milk, but I do not give it if the patient does not like it. From 4 to 6 ounces should be given, every two hours. A patient who is strong and vigorous possibly might take 8 ounces, but ordinarily 4 ounces every two hours is sufficient, and this should be given as regularly as the medicine. The patient cannot tell when he wants his food or drink, and it is wrong to disturb him by asking him what he wants so the nurse is instructed to give the medicine on the hour and the food on the half hour and just as regularly. The quantity is to be prescribed the same as the medicine. If I have any doubt about the nurse following my directions I write them out. If the patient is resting quietly, he is not to be disturbed at all. When the bowels are disturbed you cannot give milk, and you must not attempt it, as it is solid food as far as the bowels are concerned, and is very liable to disturb them. I use for bad cases of diarrhœa where there is considerable pain and colic Imperial Granum. This is a kind of food prepared from wheat. I think I have given directions in regard to cooking it. This is made into a thin gruel with water, cooked at least 15 minutes, and to this you add in most cases a teaspoonful of cream to every two ounces; this is given in the same manner as milk. Horlick's malted milk is another preparation which I have used sometimes all the way through a fever. Patients often like it. It is prepared similarly,—made into a gruel and given warm. When there is any disturbance of the bowels nothing cold should be given. Wells, Richardson & Co. are now putting on the market what is called Cereal Milk, which is a little better in some respects than malted milk. It is prepared in a similar manner and given in the same way. The flour ball is a preparation which almost every old lady knows how to make and this is a very fine thing. It is a splendid food in cholera infantum. You take ordinary white wheat flour and put it into a sack, which should be 12 inches long and 5 inches in diameter. This is set in a kettle of

cold water and put on the stove and boiled three hours and then you dry it by slow heat until it becomes hard. You can then shave it off. This can be made into a gruel and given to cases of this kind. I have given it for weeks in typhoid fever.

Mischief is often done when the patient approaches convalescence. All these patients are hungry and will deceive to get something to eat. This is the time you have to lay down the law and this is the time when an outside person is of considerable value in the treatment of this disease. Many a time I have seen patients absolutely killed by that which was not allowed. I remember one instance. A man was convalescing from typhoid and insisted upon his wife bringing him a few apples. He had asked me and I told him I would not think of it, but his wife went down cellar and brought up a pan of apples from the cold cellar. I do not know how many he ate, but that night I was sent for. The old troubles returned and he died in a few days. Just think of the ulcerated surface of the bowel, perhaps a half-dozen ulcers almost through and then think of eating solid food. Solids must be prohibited. As the fever subsides I allow the use of animal broths. In many cases you have to give some of the things you would have avoided, but ordinarily you give no animal broth until the fever is down below 100. This can be given regularly and systematically. You do not make a thick soup, but plain animal broth. I do not care for chicken broth as much, although it can be prepared, but mutton broth or beef broth can be given in alternation with malted milk or Imperial Granum, increasing the quantity and continuing such food until the bowels become normal, when you can add a little solid food to the broth. Mention in your directions just how many crackers are to be given and look at the size of the crackers. Then perhaps you could allow a little soft toast with a cup of tea. Green tea is a good thing in these cases if they want it. The patient has now perhaps been without fever for ten days, the bowels have moved naturally and you want to give some solid food. The best thing then is to take beef and scrape it across the grain with a sharp knife. Of this you can make a little patty and broil it. It is more palatable and in most cases the most satisfying of anything you can give, and with this you can give a baked potato or a little toast. Of course you want to see that the potatoes are all right and see that they are cooked properly, not heavy. Later you can give a soft egg. I have used baked apples considerably in all cases of convalescence. The apple should not be exceedingly sour, but just tart enough to be palatable. This will aid in the digestion of the other food as well. Gradually you approach



the diet of health, so that it will be about four weeks from the time the fever ceased before he can eat a regular meal. You give instructions after you have ceased your visits as to what he is to have.

I would give cool water to a case when I was giving milk and the bowels were undisturbed, giving not more than 2 ounces at a time and not oftener than every half hour. I give as a drink where the bowels are disturbed, hot water that contains something slightly nourishing,—rice or toast water properly made, giving it in the same manner as water.

These patients should be kept in bed until the pulse is normal in frequency and is reasonably full. Many of these cases get up too soon. The heart, like other muscular tissues, shrinks in this fever and becomes lessened in size, in some of these cases 30 per cent., so that an adult will have the heart of a child. You get a patient of that kind up and you soon have his pulse up from 75 to 125. A man with a pulse like that is in danger. We have to get these patients up carefully. When he is convalescent you allow him to be bolstered up to about 45 degrees for ten minutes, or possibly fifteen, once a day, and then twice a day, gradually increasing the time. You gradually slip out the pillows allowing him to remain sitting up. In bad cases it would be at least ten days from the time the fever left before he would be able to get into a chair. The nurse should understand that she should use her judgment about this and if she notices that the patient is tired and pale, she should put him to bed at once.

In regard to remedies, the remedy which I depend upon in a good many cases of typhoid fever is *Gelsemium*. I use the second dilution, 10 drops in 4 ounces of water, giving a teaspoonful or sometimes two—every hour, and continue this sometimes for a week,—as long as the symptoms seem favorable and there are no indications for another remedy. *Baptisia* is a remedy that is used by some. I used it years ago, but found that I preferred *Gelsemium* and for the last ten years I have scarcely used *Bapt.* at all. I do not give *Aconite* in a case of typhoid. *Belladonna* is a remedy that is occasionally called for. You will find cases in which the patient has a high fever and is drowsy and stupid. There is the hot skin and drowsiness, and some change in the condition of the pupil—either contraction or dilatation, for you find both these conditions in the provings of *Belladonna*. Perhaps you have some delirium, but the delirium is not of the low kind that you get with *Hyoscyamus*. It is more of the active sort. *Belladonna* ordinarily can be given for a week. *Bryonia* is a remedy which is called for perhaps as much as any other after *Gelsemium*. I would not give it in the first stage. We have a quiet, morose condi-

tion, and the patient hates to be disturbed. We may have some irritation of the pleura or of the joints. Rhus has the reverse condition. The patient is restless and cannot lie still for any length of time. He changes from side to side, and is greatly prostrated. There is a condition of the tongue which is spoken of in some works. The tongue having been thoroughly coated, the coating is removed from a triangular section at the tip. The Rhus patient is generally worse at night. Rhus covers the eruption which we find in this disease. It is not contraindicated where we have diarrhoea, but I would prefer some other remedy. A remedy which I use more than any other is Croton tig, and I believe it is the best remedy in the complications. The diarrhoea is aggravated by taking anything into the stomach. There is considerable colic preceding the stool, and the stool is sudden, gushing, and accompanied with a discharge of a great deal of gas. I use the 6x and give it in the ordinary way. Aloes I have used in a few instances. There is a kind of involuntary movement of the bowel which is not due altogether to the condition of the stool, but to a paralysis of the muscles of the bowel. The patient has muttering delirium; tries to get out of bed and imagines that he sees some one in the room who is not there; he has hallucinations and delusions and you have to use strategy to keep him quiet. You are never to oppose a patient of this kind. If he says there is someone in the room pretend that it is the case and in that way you do not disturb him. These are cases for Hyoscyamus. I give Hyoscyamus also in involuntary diarrhoea and have used it hundreds of times with benefit. Stramonium is not called for very often, but we have in such cases a more active delirium and the mind is a great deal brighter. It is not like the occasional stupor of Hyoscyamus. Patients are not so obstinate and are more inclined to be good-humored. During convalescence there are a host of remedies that may be called for, but do not give a remedy because the case is typhoid fever; give it because it is indicated. During convalescence we frequently get profuse perspiration at night, and a tendency to coldness of the extremities. The circulation is weak, or possibly the patient at some particular time of the day or night has an aggravation of some sort. In such cases China is the remedy. I have given it more than any other remedy during convalescence. I use the third trituration, either powder or tablets—2 gr. every two hours and continue it for a considerable time.

MALARIAL FEVER.

Take altogether, the most common fever that we have is malarial. It was much more common in this country in former times than at present, although in some sections it is endemic at all times, and there is scarcely any section that is entirely free from it. The New England States do not suffer very much from this form of fever, and mountainous districts, as a rule are exempt, although there is a kind of fever, termed mountain fever, which occurs in these districts, and possibly it may be of similar character. In this vicinity, in the central west, and western States malarial fever is exceedingly common. It was formerly supposed that large cities were exempt from it, although it is common in many cities. A great many years ago there was a general upturning of soil in New York City when all kinds of pipes were being put in, and for a year or two afterwards, malarial fever prevailed in a very severe form and was almost epidemic. In our own city we find that in the sections where there is a digging up of the streets for the first time we are much more liable to have it than in the other portions of the town, so we have malarial fever in Cleveland at all times of the year, but we do not have as much in the surrounding districts. It is frequently epidemic in some counties. Wood county was known to be the seat of malarial fever for a long time. The season that is especially conducive to this fever is an exceedingly wet season followed by an extremely dry spell. All of our wars are extremely productive of fevers of this kind. In the Civil War malarial fever was the most common disease in all camps. This was so in the Spanish-American War and was the cause of many deaths. In an army it is, of course, absolutely impossible to follow the laws of sanitation. By being as careful as possible every hygienic law cannot be observed. As a rule the older a community becomes and the better the drainage, ventilation in the houses, the less we have of this sort of fever. It has been demonstrated, that the cause of this disease is a germ which lives in the blood. A radical change occurs in this germ, what is termed sporulation, in which the cell explodes and the product is distributed throughout the blood. This occurs at the time when the paroxysm is produced, so that we have it occurring daily, twice daily or every second day.

We have, for instance, a quotidian fever, in which this sporulation occurs every day, a tertian fever every third day, a quartan every fourth day—two days between. Occasionally there are two germs a day, and then it is termed double quotidian, tertian or quar-

tan. A quotidian fever is not as common as the tertian, but a quotidian is supposed to be really a tertian, that is, there are two sets of germs in which sporulation takes place at different times,—one day it is one set and another day another set. The tertian is the simplest form of malarial fever. The symptoms of this fever are generally pretty well marked. We have a paroxysm consisting of chill, fever and sweat. A patient coming down with malarial fever feels that his vitality is impaired. He is generally stupid and drowsy, the bowels constipated, and there is general aching of the muscles, and finally he is taken with a chill. The chill is sometimes well marked, while in other cases it is but slight, but a well marked chill will continue usually for a half hour, and the usual means for warming up the body will have little effect. The patient becomes pale, and almost livid in some cases. There is perhaps chattering of the teeth and general tremor of the body. Gradually there is a change. There are streaks of heat running up the limbs, these increase in frequency and finally the patient becomes exceedingly warm, the fever corresponding as a rule to the degree of coldness which he suffered. Following this he notes a little moisture of the skin—perhaps of the forehead, and this gradually extends until he is covered with profuse perspiration. Then we get an interval of health, where the temperature comes down to normal or slightly below, the sweating subsides and the patient is apparently well for about forty-eight hours, when there is a recurrence of the same trouble. If it occurs a little sooner each day we term it an anticipating fever, which means that the patient is getting worse, and if it occurs a little later each day we term it a postponed fever, which indicates that the patient is improving, that nature is bringing about an influence which will aid in the cure of the disease. Occasionally these fevers become remitting, that is, they lose this interval between them. The chills may become excessive, and we have what we term congestive intermittence. These are very severe and do not occur in our vicinity to any great extent, but in those districts where malaria exists they are quite common in persons who are very much reduced. It is the general impression that a person cannot survive the third congestive chill.

Recent writers, and those who have studied the plasmodium malarie have demonstrated to their satisfaction that there are three kinds of these parasites, one which produces tertian fever, another producing the quartan, and still another which produces a remitting or continued type. This is a very severe type and prevails to a large extent in tropical countries. It has fewer intermissions, although it is productive of intermissions in some cases, and it is with these

that we get the malarial cachexia, although this occurs in connection with any of the varieties. The malarial cachexia is hardly found except in malarial districts, and it is indicated by enlargement of the liver and spleen, especially the latter, which becomes enormously enlarged. We had a case here a number of years ago, a gentleman who came to the clinic four or five seasons. He had removed from Indiana, where his wife had died and he had lost one or two children from pernicious intermittent fever. He was taken with it and ever after suffered from it. He had a spleen which extended as far as the crest of the ileum and over to the umbilicus. The liver was twice its normal size, and when he first came here he had general anasarca. In malarial districts these people are not white, but sallow, and sometimes there are darker spots here and there upon the skin. Respiration is affected. They are unable to exercise without producing frequent respiration. The heart's action is easily disturbed. The bowels are constipated, or there may be diarrhoea. Nausea and vomiting are common. They have irregular attacks of fever, and do not know when an attack is coming on. They may have a chill every day for a few days, and then a remission. It is liable to return upon the least exposure, taking of improper food, etc., and they rarely recover until they remove from that section.

Quite a number of experiments have been made in recent years for demonstrating that the mosquito is the principal cause of the spread of malarial fever, at least it is charged up to the mosquito, and it is quite liable that this is the case. I can readily understand how a mosquito when thoroughly filled with these parasites can introduce this disease into the system. It is a very delicate method of vaccination. That has been demonstrated in regard to yellow fever. In the experiments conducted recently at Havana, where mosquitoes that had become filled with blood from yellow fever patients were allowed to sting healthy men, two or three died from yellow fever given in that way, and the experiments were stopped by the government. As an experiment it was successful, but it is questionable whether experiments of that kind ought to be carried on. The germ appears to remain latent in the blood for a considerable time in some instances. One can have malarial fever and then go without it for several weeks or months, perhaps removing to a district where it does not exist, and have the disease return. Some of the worst cases we have are imported. In New York and the New England States they have very little malarial fever in the country, but cases are imported in this way.

Treatment.— It has been demonstrated that Peruvian bark and its

products are capable of preventing the sporulation of the plasmodium malariae, and consequently preventing chills. A case of tertian fever, for instance, takes 10 grains of the sulphate of quinia during the interval, or as soon as possible after the paroxysm has passed. The next paroxysm if it occurs, will be very much lighter, or possibly may be absent. We are not thoroughly satisfied how this drug acts. It acts evidently by drug force, and this has been demonstrated in so many cases that it is a common belief among the profession. In the simple cases of malarial fevers it generally comes in particularly where the chill occurs every second day.

It is not necessary to give the enormous dose that is frequently given. My method is to give in such cases 1 grain of the sulphate of quinia every hour as soon after the paroxysm as I can, and continue that until after the next paroxysm. I frequently give 10 grains after each paroxysm until they cease, then give 5 grains a day for a week, and then 3 or 4 grains a day for the following week. It has been demonstrated that unless you control it for fourteen days it will return. If you stop the paroxysm and then stop the remedy it will recur in a very short time, but if you continue the remedy and keep the patient free from a paroxysm for fourteen days it may be considered cured, ordinarily, but exposed as he is to the same atmosphere which produced it in the first instance the parasite in some manner entering the system anew the symptoms are again developed.

We have quite a number of remedies that are capable of curing these cases that become changed by the long continued use of quinine, or have degenerated into a remitting or continued type of fever. I think it is a mistake to give quinine as it is often given during the paroxysm. I notice that quite a number of the old school authorities are discontinuing its use in continued fever. They do not consider it the antipyretic they formerly did. They do not give it in typhoid and diphtheria as they formerly did. During the continuance of the fever the remedy which I use more than anything else is Gelsemium. I give the second dilution, ten drops in four ounces of water—teaspoonful doses every hour, and continue the use of it during the paroxysm of fever, or during the time that the sulphate of quinine is not given. If the fever is continuous I continue Gelsemium until I get an intermission, or until the temperature comes down to normal, and I watch very closely in some of these cases for a chance to give quinine. Occasionally we have a mixed fever,—a combination of typhoid and malarial fever, and after the condition of typhoid has subsided we frequently have the development of an intermittent fever. The sulphate of quinia given as I have directed during the

intermission will cut the disease short. Many of these cases have taken sulphate of quinia in large doses and it has aggravated the case, or at least made the case more difficult to cure.

A remedy which I have given frequently in cases of that kind, especially where the stomach has become very much disturbed, is Ipecac. It will control a large number of these cases which have been changed by the excessive use of quinine. In such cases we have a continuous irritation of the stomach. They are unable to take food on account of nausea; there is also prostration with nausea. Here we have this continuous nausea, an irregular fever, not coming on at any particular time of the day or night, the chill perhaps slight as compared with the fever, and the sweating stage not very well marked. Then we may have enlargement of the liver or spleen. When I practiced in malarious districts I used to prepare Ipecac by triturating it with ordinary cane sugar. I gave two grains of the first decimal trituration every one or two hours, until I noticed signs of improvement. I paid no attention to the condition of fever, but gave the remedy continuously. In those seasons where malarial fever was the principal trouble we had to treat, I found that this remedy would cure more cases than the sulphate of quinia. A great many of these patients will take 20, 30 or 40 grains of quinine during the interval and for a time they succeed in suppressing the fever, but in many cases even those enormous doses will fail to stop the fever, and then they call upon some one else to help them out.

Eupatorium perfoliatum is a remedy I have used quite extensively and successfully, generally giving the third dilution in the ordinary way. The aggravation of Eupatorium is in the forenoon. A perfect picture of Eupatorium is about like this: The patient is thirsty the night before he has a chill. He realizes that he is going to have a paroxysm on account of this thirst which continues up to the time the chill occurs, generally about 11 o'clock. The chill is followed by fever, which continues longer than the chill, and following that there is the usual prostration, preceded by the characteristic pains of this remedy. In Pennsylvania, they had a malarial fever, which they termed break-bone fever, and this remedy was called boneset because it was known to cure it.

Any remedy which controls the chill, cuts short the fever, or produces an amelioration of symptoms must be continued for at least 14 days.. The trouble with a great many who treat this disease is, that they dismiss their patients too soon and do not continue the use of the remedy long enough.

Nux Vomica will cure more cases than I formerly supposed.

This has a paroxysm in the morning, which is followed by great prostration, with marked aggravations after the chill. Vertigo is excessive, coming on before the chill. The patient gets up in the morning and is so dizzy he can hardly stand. Then there is the constipation which is characteristic of this drug; there is also irritation of the sphincter, with ineffectual urging to stool. This remedy comes in well after the patients have been taking vegetable cathartics, for many take these in connection with the sulphate of quinia.

Arsenic is given much more than it should be, although it will cure quite a number of the old cases. The fever of Arsenic is irregular, remitting rather than intermitting. The fever is generally worse at night and the patient is extremely prostrated. There is dryness of the mouth and throat with thirst, the patient asking frequently for a drink. Generally restlessness. It is a common remedy for feeble individuals. It was the custom of some homeopathic physicians to give it after the sulphate of quinia. It is a common remedy of the old school, Fowler's solution of Arsenic probably ranking next to quinine for malarial fever. You have to be careful in reference to the general care and management. You cannot expect to cure a case of malarial fever if you allow your patient to go out in the sun on the well day or expose himself by carrying on labor. It is quite common in malarious districts to find a man on his well day out in the field and doing farm work, and the next day remaining in the house. Finally at the end of the season he has developed a cachexia which he cannot throw off. Perhaps he will have to remove from that climate to get rid of it. Such a patient should be dieted carefully and kept out of the sun. He should be properly bathed and observe all rules of hygiene. The diet should be plain, given usually in liquid form until the fever subsides. Frequently the trouble is developed by the taking of a hearty meal. I generally put the patient on liquid food, giving it every three hours, and gradually getting up to the usual amount.

SMALLPOX.

Since the epidemic of '68 to '71, which centered about Philadelphia, there was not very much smallpox in the United States until about five years ago. From that time it has been exceedingly common and many towns have suffered very much. Fortunately this last epidemic has been exceedingly mild, so mild that it has been mistaken for some other affection, chiefly chicken-pox. It is almost impossible to believe that 200 or 300 cases of smallpox existed in a town



before it was properly diagnosed. That was the case at Loveland, near Cincinnati, where they had 200 cases, and quite a number of other towns in this State had hundreds of cases before it was recognized. We had hundreds of cases here last Winter which doubtless were not treated. Hundreds of other cases were treated as chicken-pox until it became a menace to the business of the city. At the time of the opening of the Pan-American Exposition there was a threat made by both Detroit and Buffalo that this city would be quarantined. Since then the matter has been taken in hand and the disease is pretty thoroughly stamped out. It was the belief among the people generally, even among members of the profession, that smallpox made a person sick, that a person could not have it and go about his business or be on his feet, but the mild attacks which we had here did not prevent attendance upon business, so far as the prostration was concerned, so these cases were allowed to go about, and the disease spread. A district physician told me that he traced 52 cases to one house in his district. There were eleven children in this family, some of them grown, and living at home, probably half of them going to school. It was the practice for the ones who were sick to remain at home until the trouble had disappeared perceptibly and then go to school or work, and as soon as others were taken they were kept at home,—there was no quarantine or isolation. The last physician they had claimed that it was an eruption due to eating pork and was giving them sulphur and molasses. We have known of cases in the back part of a building with a store or saloon in front, and no one knew about the cases until they had been sick for some time. It is probable that in our life-time we will not have such an epidemic here again. I have seen quite a number of cases in which there was a conflict of authority in regard to the nature of the trouble. I was called in consultation to see a well marked case of variola. It seemed the physician had not reported the case, or if he had, he reported it as chicken-pox. The authorities investigated and, their expert deciding it was smallpox, put a card on the house. The physician in attendance called upon me to decide, and in the meantime the house was partially quarantined. The father was going to work, although the children were kept from school. I said nothing to the family but called the doctor outside and told him that there was no doubt about the case being smallpox, but he said he had called it a case of chicken-pox and was not going to change his opinion. I told him to do as he saw fit. The doctor said that I had diagnosed the case as chicken-pox, just as he had expected.

The inoculated disease has a period of incubation of about eight

days. Taken in the usual way it is longer but in severe cases it is shortened somewhat. This rule applies to all contagious diseases. It was a common thing in England and Wales years ago to inoculate the patient with variola virus, and then have him cared for in a hospital. Of course a great many died from the inoculated disease, but the proportion was very much smaller than when taken in the usual way. The period of incubation is not marked by any characteristic symptoms; there is the same prostration which you get preceding disease of any kind. Generally the patient is taken with fever and chilliness, but no distinct chill-rigors followed by fever, which varies in intensity according to the severity of the case. We see mentioned in all our works the intense pain in the back—lumbago. That is present in some cases, but not all. The intense frontal headache is much more characteristic. There occurs some irritation of the throat—perhaps a little hacking cough. We notice a redness of the soft palate, and almost imagine that the patient is going to have measles, but the most characteristic thing is the papular eruption upon the forehead, small hard masses—described as shot under the skin. These papules are quite hard, move slightly under the finger and the surface around is somewhat reddened. The papule gradually increases in size and finally in about 48 hours we get a vesicle at its summit. These vesicles change to pustules in about the same length of time. First we get a little pitting in the center of the vesicle which is termed umbilicated, and then this serum gradually changes to pus, the redness around it increases; in some cases the pustules are so near together that they gradually run together, and we have what is termed the confluent variety,—a most severe form. This confluent condition is more common upon the face than elsewhere, so that we get one distinct layer of pus underneath the epidermis; after that we get a scab or crust which covers the whole face. Probably 5 per cent. of the cases in the last five years were confluent. The discrete variety, where the eruptions are separated, is the common form. The most characteristic thing about smallpox is its regularity, and this is the chief distinguishing mark between it and varicella. Chicken-pox is the only disease which resembles it so closely as to be frequently mistaken for it. First we have upon the forehead these papules and the eruption gradually extends downward until at the end of 48 hours even the feet are covered. About this time the eruption upon the face becomes vesicular and it takes about 48 hours to reach the feet, so you see the ones upon the face are about 48 hours older. Then the eruption upon the face becomes pustular and this process gradually extends downward. We do not have in the same vicinity, a papule,

a vesicle and a pustule— they are all papular, vesicular or pustular, while in chicken-pox the eruption comes in successive crops. In a mild case of smallpox they do not always run the regular course; some of the vesicles dry up or scab without becoming pustular, but these are exceptionally mild cases. It takes as long to cure a mild case as a severe one if there are no complications. The disease has to run its course.

The complications with this disease are the same that we get with measles, viz: laryngitis, pneumonia, albuminuria, pleuritis and rheumatism. Then we get catarrhal affections of the alimentary canal, diarrhoea occasionally, which proves quite severe. There is a proneness to the formation of pus elsewhere on account of the pus which is under the integument, so that inflammation of the joints or pleuræ is liable to be followed by suppuration. Then we get inflammation of the lymphatics and abscesses. The chief symptoms aside from these I have mentioned are the fever and the prostration in bad cases. We have a primary and secondary fever. The primary fever continues until the eruption has reached its limit, which is from 48 to 72 hours. Then there is a remission with very little fever for a time, until the pustules become filled, when we have a secondary fever which is sometimes intense. This continues until the scabbing process is pretty well over. Occasionally you get a case in which there seems to be a general toxæmia, the patient is delirious, and the fever assumes a typhoid character. These are bad cases, generally accompanying the confluent variety, and there is no remission until convalescence. In such cases sometimes the eruption becomes hemorrhagic, and it is termed black-smallpox. The circulation is so much impaired that there occurs hemorrhage into the pustules and the scabs are black. We have sometimes hemorrhage from the mouth, throat or other mucous surfaces—from the bladder, vagina or rectum, and generally those cases are fatal. The epidemic which occurred in Philadelphia was extremely fatal. They lost from 10 to 20 per cent., but the epidemic which we had here in Ohio was extremely mild, and the mortality in Cleveland not more than 2 per cent. There were probably 12 to 15 deaths in 2 years.

Treatment—In regard to the management of these cases, it is quite an important matter, and the great question is one of diagnosis. The mild cases of course require very little treatment. People understand that, generally, and they avoid sending for a physician, but a physician called to a case of suspected smallpox should isolate the case at once and await developments. You cannot always tell at your first visit whether it is smallpox or not, but if the disease is suspected the

case should be isolated and the family warned, and if they have not been vaccinated they should be immediately. It is the custom for physicians to revaccinate themselves. While I think that one vaccination will protect for a life-time in some instances, my rule is to vaccinate twice, once in childhood and again, at the age of 20 or 30. You will understand from this that I advocate vaccination. I do, because it is the only safe protection we have. Of course there is some danger from vaccination, but it is not to be compared to that from variola. It is to be presumed that the virus is procured from healthy cattle under the direction of the State. I procure my virus from Lancaster, Pa. I think the greatest trouble comes from improper care afterwards. People consider vaccination a simple matter and the wound is never dressed. The scab comes off, leaving an open sore ready to absorb any poison which comes in contact with it. There is more danger from that than from the virus, although in California they investigated and found in one case that the cow from which the virus was procured, had tetanus. I think I stated that the condition of the system has something to do with it, but a person who is thoroughly exposed to smallpox will generally take it unless he is protected by vaccination. The physician should vaccinate himself as a safeguard. If he is already protected, of course it will not work. In large towns there is a regular mode of procedure in taking care of an epidemic. Here we are expected to report within 24 hours after we have become satisfied in regard to the case. The patient, if he owns his house, or if he has control of his surroundings, can remain at home and choose his own physician, but the health authorities will quarantine the house by placing a policeman in front of it. If this is done properly the house is guarded and no one is expected to enter the house, except the physician and nurse. The guard is supposed to be the medium of communication between the family and the market, they can give an order to him, he puts it in a basket and some one else fills and returns it. In the country the custom was carried out in this way,—the physician was called and generally he was the one to receive the order for what was wanted. He would place it in a basket in a corner of a fence and some one from the store would get it, fill it, and place it back there. They have no pest-house in the smaller towns and they have to quarantine patients in that way. The patient employs a nurse who has had the disease, the family is quarantined in one part of the house, and the patient in another, and this patient and the nurse live an independent existence as long as it is necessary; the cooking and washing is done independent of the family.



The physician should have some outer garment which he leaves in the shed or some outer room, or possibly in the barn. The ordinary waterproof coat is the best thing; he should wear a wrap of the same material, when he goes into the room to visit the patient. He first observes that his hands are free from abrasions. If he has an abrasion upon the finger or wrist the virus may be absorbed directly. He then takes the temperature. Of course the thermometer should remain there. He now leaves this room and enters another, gives directions to the nurse, and leaves. Before leaving, in this outer room he bathes the hands and face thoroughly with some antiseptic solution. Then he changes his clothing and there is no danger of contagion. People will not believe that generally, and in many instances your other business will be diminished if they know you are treating a case of smallpox, and therefore, except it is a very dear friend or some one with whom you are closely allied, or some one in whom you have interest, you turn these cases over to the health officer or district physician. Usually in a city we turn cases over to sanitary officers, although we are not obliged to do that.

The diet should be the same as in typhoid fever. Until the fever subsides I would not allow the patient to take any solid food, and no animal broth until convalescence is established.

In the first stage we sometimes get extreme prostration and profuse perspiration, coldness and feeble pulse. The circulation is very much impaired, and in such cases we use stimulants to some extent. Liquor in some form will have to be frequently administered after the crisis is passed, especially in those who are very much debilitated.

Remedies.—As far as remedies are concerned, Aconite is the principal remedy in the first stage. In a few instances where we have intense frontal headache Belladonna would be the better remedy, and this is continued until the primary fever subsides. But take the fever from the first to the last and there is one remedy that covers it, —Tartar Emetic. Sometimes we get a bronchial affection which calls for it. Frequently it is the only remedy we give after the primary fever subsides. Bryonia is called for where we have pleuritic complications—pains in the chest, aggravated by motion, or where there are rheumatic complications, pains in the joints with swelling and tenderness. If there is excessive suppuration Hepar Sulphur will aid you. Mercury is a good remedy in smallpox where we have profuse perspiration without much relief as is often the case in the secondary fever. I have used in such cases the 3x of Mercurius Sol, 2 grains every two hours. Sulphur 30th will clear up a great many cases at

the last. It follows well after Bryonia. Rhus Tox. in the great prostration which accompanies this disease. Hyoscyamus where we get the muttering delirium, hallucinations and delusions, the sleepless nights, accompanied by starting up and attempting to get out of bed. There are other remedies which would be called for in other complications, and there are many which are considered of importance in smallpox.

The great fear which many have of smallpox is not death, but disfigurement, the pitting, cicatrization which occurs upon the face. Ordinarily that can be prevented. It was formerly believed that we should not disturb these pustules at all, but recently opinion has changed in regard to that. As soon as the pustules upon the face are full take a sharp needle, heat it in a flame, which sterilizes it thoroughly, and go over the face from one side to the other opening these pustules—opening just enough to allow the pus to escape and relieve the tension. After they are scabbed over, just raise the margin of the scab. The philosophy of this opening process is that the pus will burrow unless you do it. The pustule is on the outside of the true skin originally. If it burrows into the skin there will be cicatrization, which cannot be prevented. This process has been adopted pretty generally in the hospitals now. I adopted it in 1870 and '71. I was suffering from the disease myself. On account of this intense feeling of pressure upon the face, a feeling as though it was covered with rubber drawn very tightly (I was not so sick but that I could raise up), I took a needle and went through this process myself, and found that it furnished great relief. The physician who was attending me was in doubt as to this method. I have done that in every case I have treated. Dr. Slosson, of Cincinnati, was the only man who did it at that time. We cannot always prevent pitting in this way, because sometimes the pustule is deep seated.

As far as local applications are concerned, I object to anything which seals up the skin—as many of them do. If we remove the scabs forcibly of course we have an ulcer, and I would not allow anything of that kind, but the allowing of pus to escape once or twice daily without removing the scab is a good process. The best application I find is ordinary pure sweet cream applied to the face with a camel's hair brush or feather, covering the face over with this cream, and applying it frequently.

One word in reference to the time you are to keep the patient in the house. The health authorities here claim that a patient should be kept in ten days after the trouble has disappeared. A patient should be quarantined until every vestige of the scabs have gone.



Then he should be bathed thoroughly, his clothing changed, and all the clothing in the room should be boiled or burned. They can be boiled and used again with perfect safety. Boiling destroys the germ unquestionably. The room should be washed in a bichloride solution. If it is papered the paper should be scraped off, the walls washed and the room repapered. The patient should be bathed again, the clothing changed, the hair shingled closely to the head and the head washed thoroughly. He can then be allowed to put on his ordinary clothing and go about his business.

The probabilities are that for the next ten years you will see smallpox occasionally and you will treat it, especially in cities, and you will have to be on your guard. Do not hesitate to call the district physician and health authorities and let them share with you the responsibility. It is a small matter, doubtless, but it would be a great one if you treated the first case in a town without recognizing the nature of it, and it afterwards became epidemic. It is a question of reputation, largely.

SCARLET FEVER.

There is a disease, which is prevalent now in the city, which requires considerable attention. It is in some epidemics extremely fatal. That is, scarlet fever or scarletina. It is a disease which is dreaded by the public generally, though perhaps not so much as diphtheria, which is the worst disease we have. It is a disease which can be relieved very much by homeopathic treatment and proper care. This treatment shows its superiority in this disease as much as, if not more than, in any other, perhaps on account of the injury occasionally done by excessive drugging, both locally and internally. The tendency of the allopathic school is to give more drugs than necessary.

It is a disease of childhood, although this is not always the rule. People who have suffered from this disease before they reached adult life are generally immune. I have seen a few instances of adults who were exceedingly sick. I have under treatment at the present time two adults, one a man about 45, and his sister-in-law perhaps 30. The first case in the family was a child three years old, not a very bad case, although the complications connected with it made it quite a serious affair. Then came the mother, and her brother-in-law who was visiting there. The mother and the brother-in-law had very severe sore throats. I remember an instance of a man 45 years of age, who was taken sick during the prevalence of la grippe and had an

exceedingly high fever. The fever continued without remission for days, and I could hardly understand why a case of la grippe should not present some modification of the fever. At the same time he had a very sore throat. His throat was extremely red and his tonsils were swollen, and he had a general diffuse redness of the soft palate. In about three days he broke out in a general eruption, a perfect picture of scarlet fever. To show how peculiarly this disease acts, the children in the family had scarlet fever quite a number of years before and he made no effort to keep away from it and he had been exposed to it many times before.

Sometimes we have sporadic cases, and the balance of the family do not take it, and another year it seems as though every person who is not an immune would take it. One year I had a case about $1\frac{1}{2}$ miles from the village in which I practiced, in a family of three children. One child had scarlet fever in a very severe form. He had nephritis following with some dropsy, and there was no doubt about the case. The other children were with this child up to the time I was called. I isolated the case as best I could in a small house. The other children did not take it, and that was the only case of scarlet fever in that vicinity that year. The following year a young lady in the village who occupied the same room with her sister, had it in a very severe form. Her sister was with her up to the time I called and isolated the case, and that was the only case in the township that year. Some three or four years after, in the Spring of 1872, I was called to see a young man, who as I remember, was about 18 years old. He had it in a very severe form, and his was the first case I ever treated without eruption. This man had no eruption whatever, but he had that characteristic throat, the red palate, and the tonsils were swollen and as red and smooth as if they had been painted red and then varnished. He had a high continued fever. There was no deposit as we get in diphtheria, and I could not understand the case. I treated him for his fever, and it was not clear to me until the other children began to come down, that he had scarlet fever. For the next three months I had some 75 cases of scarlet fever in that vicinity. That is the way it spreads some years. I remember a number of years ago there was quite a discussion going on in the profession in regard to the contagious character of scarlet fever, some taking the ground that it was contagious, and others that it was not. It is generally considered as contagious, but the first case that I reported would indicate that it was not. It is demonstrated to be contagious enough so that every case should be isolated.

There is no particular season of the year in which it prevails. It



is hard to tell just how it spreads. Of course we know there is very little danger of contagion in the primary stage, until the eruption appears. It is not like measles in this respect, for one can take measles before the eruption appears. The scales which are flying about the room, swept up and distributed generally, are the cause of the spread of it in a great many cases. Inhaling the breath of a person who has the disease would certainly develop the disease in one who is not immune. In the case I referred to, that of a child three years old, there had not been a case in that vicinity and certainly none in their immediate neighborhood, no one had been in the house, and the child had not been taken out. I remember a case in my father's family. There were five children, the youngest in the cradle, probably six or seven months old. She came down with the scarlet fever. The rest of us were running about and mingling with the neighbors. There had not been a case of scarlet fever in that vicinity, and there had not been anyone in the house that we knew of who would have exposed the baby to the disease. From that case the rest of us took it and we had a sick time of it for a month or more. Ordinarily we can trace one case from another. The epidemics vary in malignancy, and usually one malignant case will develop another. However, we find the reverse to be true and we may get two or three mild cases from one malignant one. I have seen every case in a family prove to be malignant. I remember a family out on Woodland Ave., under the treatment of the late Dr. Barr. I was called in consultation to the first case, which was a bad one. The other three children were playing about the house and in this child's room, but they were kept from school. They were around and upon the bed as children would be. I said to the Doctor, "This is a bad case and it will not do to have these children exposed to it." We called the mother and told her how necessary it was to exclude the children from the room and asked if it were not possible to send them away somewhere, but she said that she did not know where to send them, and "it was too bad to keep them out of the room." I told her it was a bad case and I considered that she was doing a great wrong in allowing the children in the room. Those three children took the disease one after another and every one died. I have seen other instances of that kind where a whole family of children had been swept away. Then again, we may get fifty cases of mild scarlet fever, hardly sick enough to go to bed. Another thing, we cannot tell just what character the case is going to assume. It may start in a mild way, and in a few days serious complications may occur.

The period of incubation is from one to seven days, or from two

to four days, something like half a week. If the patient is exempt for more than a week, ordinarily, he would not be liable to take it. The first symptoms noticed are fever, sore throat, vomiting, and in many cases if the fever is exceedingly high in young children we get convulsions. Then within 48 hours, or sometimes at our first visit, we get an eruption upon the anterior surface of the chest. It generally consists of little points about the size of a pin's head scattered over the red surface, so that when you pass the fingers over the surface it feels like minute grains of sand upon the skin, not like the papules of smallpox, which feel like shot under the skin. This eruption remains from three to five days, and then it begins to disappear,—about the third day getting paler, and disappearing in the way it came. It extends from the chest over the whole surface of the body, taking about 24 hours to become general. If the case had been a bad one and the hyperæmia quite extensive we get desquamation, but desquamation is not a positive sign of scarlet fever. Desquamation will occur in every case of severe inflammation of the skin. As soon as the circulation is cut off, and the nutrition of the epidermis is impaired it begins to die and is thrown off. The nails of the fingers and toes may come off during the process of desquamation, but such are exceptional cases. The fever is continuous until the eruption begins to fade. This is true of all eruptive fevers. In the bad cases we sometimes get a septic condition which develops a continued fever, and these cases will continue for three or four weeks.

Complications are exceedingly numerous. There is perhaps no disease which has so many complications. We may get an excessive swelling of the tonsils—follicular tonsillitis is common, and we may get a membranous deposit of diphtheria. I did not formerly believe that diphtheria and scarlet fever could co-exist, but I have become satisfied that one can follow the other. The lymphatic glands of the neck become swollen so that the child will hold its head back because it is swollen in front from the jaw to the clavicle. Then we get inflammation of the Schneiderian membrane, with a profuse watery discharge at first, which later becomes purulent. When a child is asleep it closes its mouth and then it is obliged to open it with a sudden jerk because it cannot breathe through the nose. Such a child will have to be watched carefully and kept in an erect position almost, so that it may be able to breathe. Nephritis is exceedingly common. We examine the urine in scarlet fever cases for the purpose of noting the first indication of albumen, and it is examined microscopically for casts. We note the quantity of urine passed in 24 hours. In most of the cases I have it measured from day to day.



Then we watch for any indication of dropsy, swelling of the eyelids or puffing about the ankles or feet. It is not only in the worst cases that we get this complication. I have been called back to treat the dropsy when I had previously dismissed the case. Generally I do not dismiss a case without this warning, "If you notice any thing wrong about this child, any trouble in urinating, or any swelling of the feet or face let me know at once." There is a tendency towards suppuration. Any inflammation in this disease is liable to become purulent, and we have to watch carefully for anything of that kind. Often the ear-drum becomes ruptured before we are aware that we have anything wrong with the ear. It cannot be avoided perhaps in all cases, but by watching you could puncture the ear and prevent excessive ulceration afterwards. Erysipelas sometimes occurs. I have lanced a good many abscesses found underneath the skin in consequence of inflammation. There is a kind of rheumatism that comes with this disease, resembling very closely acute articular rheumatism, and we are very liable to get affections of the heart. I remember two cases, one girl and one boy whom I treated a great many years ago. They had scarlet fever and following that rheumatism and endocarditis, and consequently valvular disease. We have to be on our guard in reference to this. Then we get broncho-pneumonia, pleuritis, and the usual affection of the chest. If we get a bad case of pleuritis we are very liable to get pyothorax. If there is much inflammation in the pleural cavity, we are liable to get pus there, and that is something against which we should be on our guard.

Treatment.—In regard to the treatment of the case, mild or malignant, it should be isolated. If you are in the city you report the case to the health authorities, who place a card upon the house. The health authorities notify the school where the child attends and the teacher is informed of scarlet fever being at such a number and sees that no child comes to school from that house. Usually we tell the family that the children cannot go to school because the health authorities will not permit it. The red card is placed upon the house and it states that no one is allowed to take this card down except the health authorities. A case in point—A physician owned a block and another physician was treating a case which he reported as scarlet fever, and a sign was put on the block. The physician (owner) took the card down and was called down himself for it. He apologized for it, because the law is very severe and he could have been fined to the extent of \$100.00. I am always careful myself to uphold the health authorities in matters of this kind, and I advise every physician to do the same.

We isolate the case as best we can. If there is any other place the other children can go, I prefer to send them out of the house, for it is almost impossible to keep the children from being exposed if they remain at home. The room should be well ventilated and kept at the ordinary temperature, and the child should be made as comfortable as possible,—not overloaded with heavy clothing. I allow cool drinks, not ice water, however, but moderate quantities of cool water. It is to be taken slowly and carefully, a small quantity at a time. So far as bathing is concerned I object to the ice cold bath in this disease, as I do in typhoid. I was glancing over the latest authority of the old school, and in the treatment of this disease, he advises a cold bath or an ice pack. He said that some objected to this, and that it would be better to use the warm bath, at least, at first. I object to a great amount of bathing until the period of eruption has disappeared, and then allow only the use of tepid water if the fever continues after that. Cases must be watched for some time on account of the complications. We should be exceedingly careful about draughts in the room and any exposure which would be liable to produce a chill.

In regard to remedies, Belladonna is more applicable to the first stage than any other remedy we have. It has in its pathogenesis the same kind of throat which I have described, it has general diffuse redness, with considerable swelling, and it produces the rush of blood to the skin. We have in some cases the same drowsiness that we get with Belladonna, and the convulsions of the children which indicate that we have intense cerebral hyperæmia. It is *the* remedy in the majority of cases. This is continued until the fever begins to subside. In a few cases where the patient is extremely restless, perhaps having an irritation of the larynx connected with this drowsiness, Aconite would be the remedy. This is continued in the same manner until the fever subsides. For the complications, we have to treat them as they arise. Bryonia is a remedy which is often indicated, following well after one or the other of the two mentioned. If we get tendency to acute rheumatism and there is tenderness of the joint, pleuritic complications, sharp pains in the chest aggravated by motion, Bryonia would be the remedy. Rhus Tox. is a remedy which has more of the nervous condition than Bryonia. The patient is extremely restless. There is tendency to prostration. It covers the so-called typhoid state. We get dryness of the tongue and excessive nervousness and loss of sleep, with perhaps the implication of the articulations as in Bryonia. Sulphur may be called for when there is some difficulty in breathing, some dyspnoea, and perhaps intermitting fever, worse at night. We have perhaps a patient taken at night with

fever, and following that a hacking cough and the patient sits up to breathe, because there is dyspnoea when he attempts to lie down, and following this fever we get some perspiration. This is called for in quite a number of cases. For the nephritis there are two remedies which I use, Apis and Apocynum. Apium virum is prepared from the poison sacs of the bee, and Apis from the whole bee. The preparation I use is Apium virum. We have some rheumatic symptoms, some irritation of the skin, with perhaps some itching and stinging. If we had general anasarca without any of these characteristic symptoms, I would prefer Apocynum. This I give in the tincture, ten drops in 4 ounces of water, teaspoonful doses. It is a remedy which has to be continued for some time. We cannot expect improvement in 24 hours. I have given it for ten days, before I received any satisfaction, and then the whole thing would seem to disappear like magic.

MEASLES.

We will take up the subject of rubeola, measles. This is a disease which you all will be obliged to treat. Epidemics generally are so mild that people do not fear the disease, but occasionally we have one which is very severe, and you may be taken unawares when you get cases of that kind. It is considered such a mild affair that some people think it is silly to call a physician to treat measles, but I have seen severe epidemics. It was the most fatal disease in our army during the Winter of 1864-65. More died from measles in the western army that Winter than from all other diseases combined. The disease assumed a malignant form and was called black measles. The term black is applied to all eruptive fevers which assume a malignant form. We get a cyanotic condition, and in some cases there is hemorrhage not only from the section of the skin into the pustules as in smallpox, but from the mucous surfaces—mouth, throat, rectum, kidneys and bladder. Therefore, measles should be watched. We may have in a family cases in which the children are not seriously ill and an adult may take the disease and die from it. It is generally supposed to be more serious among adults than children. This is doubtless true.

It is a disease which has many complications. A simple case of measles without complications is rare. We dread the complications more than the disease itself. The period of incubation of measles is longer the most of the other infectious diseases—from 7 to 21 days—usually about two weeks. Another characteristic of measles is that it is more contagious just prior to the appearance of the eruption, and

this is the cause of its spreading so rapidly. A person may come down with measles without his knowing that he has been exposed, and in that way will communicate the disease to a large number of people. I remember in the Spring of '65 two soldiers came home to a little town in Medina County, and in celebration of their coming home they had a party, a dance, at one of the halls. It seems that they were coming down with measles and there were eighty persons who contracted measles that night. It gave us employment for some time. Some of the cases were quite severe. Usually a person has had measles before he reaches adult life, but I have treated measles in patients as old as sixty. I remember one family in which there were several sets of children, seven in all, the mother and father each having been married before. The old gentleman was 62 years of age. They all had measles at the same time. The father had bronchopneumonia. The two oldest daughters had ophthalmia and were treated for some considerable time. The oldest son had a severe attack of bronchitis, so that in that family I was employed for about two months, and after that they employed an oculist for a long time.

The period of incubation is not marked by anything more than the usual symptoms. Prostration is always present in these cases; a feeling of dislike to perform either mental or physical labor. The appetite is somewhat impaired and possibly there is constipation. The onset of the disease is marked by more characteristic symptoms which put us on our guard. We have a hacking cough and a fluent coryza, with irritation of the conjunctiva and nose. The child rubs his eyes, and nose, and sneezes. We examine the throat then, possibly, and note a little redness of the soft palate. It is not the smooth palate of scarlet fever or diphtheria, but has a patchy appearance; irregular reddish spots are seen upon the soft palate. Very soon and possibly at our first visit, we note upon the face a blotchy condition; these patches are irregular, raised, reddened eruptions, and between these eruptions, unless the case is very severe, we get healthy skin. In bad cases the whole surface is reddened. I have seen cases in which it was almost papular, and if they were a little more circular in form I would have suspected smallpox. From the face it extends down to the chest and to the balance of the surface of the body, taking from 24 to 48 hours to complete the circuit. It gradually disappears in from three to five days, starting upon the face and the pallor extending downward in the same way in which the redness came, so that it remains on each portion of the skin about the same length of time. In some of the cases it is as regular as smallpox or scarlet fever. Sometimes the first thing you notice is the red eruption. Other cases

will sneeze and cough for a week or ten days before there is an appearance of the eruption, and we abandon the idea that it is measles because of the tardy appearance of the eruption. These are exceptional cases. Sometimes it appears for a few days and recedes, the child being made exceedingly sick by it. There is occasionally desquamation. As I told you before, if the epidermis is destroyed it becomes necrosed and is thrown off, but unless we have a pretty severe eruption, we do not get desquamation with measles. When we do get it, it is in little fine scales. If the eruption assumes a dark color and the patient is cyanotic, and the pulse is not as full as it should be, the case will prove to be a bad one. This condition is not as common in civil life as in large communities of people. If it gets into a hospital or camp it is more apt to assume this typhoid type. Ordinarily the fever continues until the eruption has reached its height and then gradually disappears. It is frequently higher just prior to the eruption than it is later, and does not disappear until the eruption is pretty well faded. In children we get convulsions—not as frequently as in scarlet fever. Vomiting is a common symptom; before the eruption has reached its height, is diarrhoea. It is not uncommon for the patient or family to call us back on account of this condition which they imagine will prove serious. Ordinarily it is followed by a remission of symptoms. I have very little fear of that trouble in measles, although I have seen a few instances where the diarrhoea continued and required special treatment.

The most serious complications of measles are those which affect the mucous surfaces, the respiratory tract in particular. They may have laryngitis, bronchitis, pneumonia, pleuritis; as in other infectious diseases the patient may suffer from suppuration. The pleuritis may develop pyothorax or we may get suppuration of the middle-ear, without scarcely any previous indication that there was trouble. We get scarcely a case of measles without some implication of the bronchial mucous membrane. Cough is characteristic of the trouble. If the case progresses favorably, this rapidly subsides. In children, it is liable to extend to the lower tubes. Very many children die of this form of trouble in both measles and whooping cough. We will find in these cases a moist rale. We will notice that the vesicular murmur is not entirely absent and we percuss the chest to find whether there is any air entering the lung. The amount of air is diminished because some of the tubes are blocked but the normal vesicular murmur is present to some extent over the part of the chest where we hear the moist rales. Later we get a number of crepitant rales, indicating that

the air cells are involved, and then we have lobular pneumonia. We watch these cases carefully and note whether the lung is becoming implicated, and whether there is absence of the normal vesicular murmur. If this is not absent, although the rales are fine, the lung is not involved to any extent, but if this is absent, that part of the lung is undergoing some inflammation. Capillary bronchitis and bronchopneumonia are what we have to treat. In cities we frequently get, especially during the prevalence of croupous pneumonia, the two occurring together. Then we get extensive inflammation of one lung. The patient could not live if half of both lungs were hepatized. In such cases the fever continues beyond the period of the eruption and we have another disease to contend with. Pleuritis would be indicated by severe pain in the left side. Why this is, I could never explain, but probably two-thirds of the cases of pleuritis are upon the left side. Then we have the friction sound and possibly later the accumulation of fluid, with dullness and absence of all sound, and possibly too, we may get a hectic fever, with chills and suppuration, with profuse sweating, indicating pyothorax. Rheumatism also is a complication we get in this disease, but not as frequently as in scarlet fever, and the question is whether it is the same form of rheumatism that we get idiopathically. We have acute inflammation of the joints, chiefly of the extremities, and effusion of fluid within the joint, sometimes becoming purulent and requiring surgical treatment. Fortunately this is not a very common sequel. Inflammation of the middle-ear is exceedingly common, and requires watchfulness to prevent any damage to the ear. Occasionally meningitis sets in. We have symptoms which indicate that from the first. Perhaps the child is taken with convulsions, loss of consciousness and intense pain. This may affect the back part of the head, and we get opisthotonos. We may get hemiplegia or deafness or anything which would indicate serious inflammation of the brain or its covering. Cases of measles have to be watched for a considerable time after the disease has subsided. It is one of the diseases which are liable to meet with relapses. A child who has had bronchitis is allowed to go out, takes cold and has a return of it. We will find a great many cases who have had bronchitis ever since they had measles. The foundation of the trouble was laid when they had an attack of measles. Albuminuria is another complication, and for that reason we examine the urine frequently during the illness and note whether there is anything abnormal. Or before we have done this, perhaps, there is a swelling of the eyelids and face and also of the lower extremities, and we find that





the urine is scanty. This is not as common as in scarlet fever, but I have seen quite a number of cases of nephritis following measles. Erysipelas is another trouble we get occasionally. Some portion of the integument becomes extremely red, there is intense thickening; we are very liable to get suppuration and these cases require free opening as soon as pus is noticed.

Treatment.—The treatment of measles is usually that which would be indicated for the complications. Aconite is a remedy which covers most of the first symptoms. If you examine the larynx you will find the eruption there, and until that eruption subsides you cannot hope to control the cough. It is not like an ordinary cough, which may be controlled in a few hours, but it will continue for two or three days in spite of anything which we do. In a few instances where we have inflammation of the brain or its covering—Belladonna would be indicated. It would be indicated by convulsions, stupor, drowsy condition of the child and the intense heat of the skin, which perhaps would be greater than in ordinary cases. In some of these cases you get a very high fever. The fever going up to 104 or 105 degrees. This remedy should be continued until the fever subsides. For the laryngeal cough, which is persistent and aggravated by the recumbent position, and relieved by sitting up, coming on in paroxysms showing its nervous character, Drosera is the remedy, and it is frequently indicated. If we have continued irritation of the eyes and nose, and this is continued beyond the period of fever, and there is hacking cough or possibly stitching pains in the side such as we get with Bryonia, Squills would be the remedy. This is a remedy which is not used as much as it should be. It has some of the symptoms of Bryonia. It has the pains in the chest aggravated by coughing, a few other characteristic indications. There is profuse lachrymation, fluent coryza and irritation of the nose. There is another symptom of Squills which you will note in all works of *materia medica*, the patient has loss of control of the sphincter of the bladder, so that during every attack of cough there occurs a discharge of urine. In women this is not an exceedingly uncommon symptom, and it is a very annoying one, and one that you get occasionally from a cough of any kind. I have patients under my care in whom this occurs whenever they have a paroxysmal cough, and in most cases Squills will relieve it. My attention was called to it by my associate for eight years, the late Dr. Morrill, and he had tested it satisfactorily for a great many years.

Tartar emetic is a remedy which will be called for in many cases of capillary bronchitis. It is needless for me to allude to the symp-

toms:—a filling up of the bronchial tubes, which the child is unable to clear out; irritation of the stomach, producing vomiting, and a cyanotic condition. Sulphur is indicated in quite a number of these cases where the eruption does not leave the skin in a healthy condition, when there seems to be an irritation of the skin, where we have dyspnoea and cough.

GERMAN MEASLES OR RUBELLA.

There is another disease which resembles measles very closely and it will perhaps give us quite a little annoyance; it is termed German Measles. It is a disease which is very similar to measles, although it has some characteristics of scarlet fever, and when an epidemic of German Measles occurs in our vicinity we will find that one physician calls it scarlet fever and another measles. The prominent characteristic of German Measles is an implication of the lymphatics, especially about the neck and axile; it extends to the groin and even the extremities. The period of incubation is remarkably long,—from 2 to 3 weeks. It often spreads through a school and is exceedingly contagious. A child is exposed before we are aware that there is a case at all, as it is contagious before the period of eruption. The child is taken with fever and perhaps a little vomiting. The fever is not remarkably high, the temperature not going up beyond 101, and the mildness of the fever is what leads us to suspect that it is not measles. We notice upon the soft palate a little redness, which is more rose colored than the eruption of measles. Possibly sometimes we get upon some portion of the body a renewal of the eruption. There occurs very little desquamation. The fever is generally gone in 48 hours and the patient feels as well as usual. The rule is that, if it were not for the eruption, the child would go back to school, but here we are expected to quarantine just the same as if it were measles. It is a mild affair, though in some cases I have seen bronchitis and possibly an irritation of the larynx following.

The treatment is about the same as for measles. In all these cases we must be rather careful, for our reputation is at stake, and it is rather an unfortunate thing to have to take our card down because we made an error in our diagnosis.

I remember when I was a student, even before I entered college, I had a copy of Bartley's Medical Diagnosis, and we had collected these characteristics upon one page. I committed them to memory, and have never forgotten them. The period of incubation of smallpox is one week, and sometimes two, but usually one week. Scarlet fever is



from a few hours to fourteen days, and that too is usually about a week depending upon the severity of the case; of measles—from 7 to 21 days, the average time being two weeks; German Measles—somewhat longer than measles. The symptoms which precede an attack of smallpox are fever and appearance upon the forehead of the characteristic papules of this disease. The eruption of scarlet fever very rarely appears upon the face, but upon the chest, preceded by its appearance in the pharynx and soft palate. It looks as though it had been painted red and varnished. We get that in diphtheria, but it is more marked and the membrane soon forms. The eruption of measles appears first upon the face, with patches of healthy skin between. German measles also appear upon the face, but the eruption is more rose-colored. Varicella resembles variola more than any other eruptive fever. It is scarcely ever papular, usually vesicular, and occurs in successive crops. The fever of smallpox consists of two divisions. We have a primary fever, which occurs during the appearance of the eruption and subsides as soon as the eruption is fully out, and then recurs during the stage of suppuration. With scarlet fever ordinarily the fever continues until the eruption is at its height and then subsides gradually. In bad cases we get a continued fever. The fever of measles is about the same as in scarlet fever, although it is more liable to subside early during the eruption. This too assumes a continued form with the characteristic typhoid symptoms. In German measles the fever is very light. It is something like the fever of varicella. It depends upon the complications. All of these cases have to be watched carefully because of the complications which occur. They have to be guarded more than the average case of sickness for fear of any recurrence of the trouble. In scarlet fever, especially, I have seen a very bad case of nephritis following a mild attack of this disease. I can recall cases where a child was not sick enough to go to bed, but had a nephritis which lasted for months.

VARICELLA (Chicken-pox).

Varicella is a disease so mild that people generally do not fear it, and therefore you can have your instructions carried out, and indeed, there are very few cases reported as the law requires. Most of the cases have no physician, and those who have seldom report the case.

Aconite in the first stage will subdue the fever, or at least control it as much as anything can. Possibly you may get a condition requiring Belladonna—dullness, stupor, and drowsiness in connection with

the fever. Tartar emetic may be given later, or Sulphur or Bryonia as the case may be.

Occasionally we get some of the complications that we get with infectious diseases generally, but it is exceedingly rare to get nephritis. I have seen one particularly bad case of nephritis following chicken-pox, also inflammation of the middle ear, with suppuration and a few cases of erysipelatous inflammation. I think I can recall a few cases of acute rheumatism in connection with varicella, but these complications are somewhat rare, and when they do occur, they require the treatment that you apply to such complications generally.

CEREBRO SPINAL MENINGITIS.

There is a disease to which we referred the other day and which you will occasionally meet. It is most difficult of diagnosis,—epidemic cerebro-spinal meningitis,—spotted fever. This sometimes occurs sporadically, and occasionally in epidemic form, it is known to spread over a large territory. It is extremely rapid in its course, almost as rapid as la grippe. The most serious epidemic we have had in this country was that of 1865. It began in the Winter of 1864 and continued for something over a year, then recurred every Winter for two or three years longer. We have had quite a number of cases during the last six months, but we have had no epidemic such as I have mentioned since 1865.

Most authors agree that it is produced by a specific organism, some, however, claim that there are cases without this. The period of incubation is generally from seven to fourteen days, but at the end of that time it is not unusual to find three or four members of the same family taken at once. What makes this disease so frightful is that the first cases of an epidemic are so extremely fatal. This is what the writers state, and it was true of the epidemic noted above. In the vicinity where I practiced, I knew of instances where two members of the family died within forty-eight hours. It more frequently attacks middle age, or those from ten to thirty. A young man of perhaps twenty who had been perfectly well would go home in the evening cold and shivering. Then he would have a severe chill, with the most severe pain in the back of the head and neck. He would possibly go into convulsions, or become unconscious and die perhaps in a state of opisthotonos, his body perfectly rigid. I remember one case in which you could take the body and lay it upon the back and it would rest upon the head and heels. These patients die in a very short time. Then we have some extremely mild cases, in which the opisthotonos is

scarcely noticeable. You would not recognize the trouble were it not that other cases in the same family were much worse. If the patient does not die within 48 hours, he frequently goes into a typhoid condition and then there is a remitting fever for three, four or five weeks. It is exceedingly difficult to distinguish such a case from the ordinary case of typhoid, except by the rigidity of the muscles. The seat of the lesion in meningitis is in the meninges of the spinal cord and brain. In the cases which die suddenly we get hemorrhage,—a large clot of blood in the cervical portion of the spinal canal. I remember one case in which the whole spinal canal was filled with a large clot of blood; or it may be in the ventricles of the brain. These cases of course live but a short time. In case they recover we get a thickening of the membrane and excessive secretion of serum, which in some cases becomes purulent frequently remaining for the balance of the patient's life. Peripheral neuritis is not common and the nerves become so thickened that they require surgical treatment. The internal organs become affected to some extent, but the principal force of the disease is spent upon the nerve centers.

Symptoms.—The fever is not quite as high as in typhoid. That is a difference between the two diseases. It is more remitting in character and there may be some prostration, but the most characteristic symptom is the effect upon the muscles—the rigidity of the muscles of the neck chiefly. Sometimes the extremities are rigid, with clonic spasm. Less frequently we have tonic contractions for a time, but there remains after a tonic convulsion some rigidity, so that any attempt to raise the head of the patient fails; if the patient is conscious he will assist you all he can but he cannot bring the head forward. He hates to have you touch the back of the neck, the spinous processes being hypersensitive. General dropsy is common in these cases. The child will scream the moment you attempt to touch or move him. Diarrhœa is not common. We get occasionally a case in which diarrhœa sets in early, and then, if we have no marked muscular symptoms, it is pretty difficult to distinguish between that and typhoid. A case of that kind died at the hospital here a short time ago. A young man was taken with a mild form of fever, general muscular soreness,—but no marked headache—the fever high—perhaps 103. I do not remember that he had the nausea and vomiting which is common in these cases. He had diarrhœa, which was quite persistent and some tympanites. At the time I saw him it was difficult to detect any lineaments of the neck. He was delirious and it was difficult to move the head. He had this diarrhœa, more like the diarrhœa of typhoid, but later symptoms developed which showed it

to be a marked case of spinal meningitis. He had rigidity of the muscles of the neck, finally became comatose and died.

Where we treat an epidemic of that kind we are on our guard, but when we have these sporadic cases we are liable to be misled. There was an epidemic in the vicinity of Wakeman, O., about fifteen years ago, several cases dying suddenly. It was variously diagnosed, by the physicians in charge, in fact, they were at a loss to account for the sudden deaths. A gentleman who was here visiting gave me a history of these cases. It was a perfect picture of spinal meningitis, and I so stated to him, but by that time it was recognized by those who had the cases. The first case is frequently improperly diagnosed. Prof. Gamber examined the blood in these cases noted above and he was quite positive that it was not typhoid, or at least, he favored the other diagnosis. It is claimed that the examination of the blood in such cases will demonstrate the diagnosis. We get various kinds of eruption, hence the name, Spotted Fever. These may be herpetic; sometimes we get spots of ecchymosis, varying in diameter, irregular in shape and scattered here and there about the body, generally about the back and the back part of the chest, sometimes extending forward over the abdomen; they are quite pronounced in the cases that die. In these cases we get a changed condition of the blood vessels and of the blood itself; there is hemorrhage from the vessel and in some cases it amounts to purpura hemorrhagica, though that is a condition which we do not often see, in which there is hemorrhage from all parts. I have seen hemorrhage from the bowel and lung in continued illness of this kind. No doubt many cases die from hemorrhage in the internal organs,—liver, spleen, kidneys.

Pain is intense, and if the patient is conscious he will give expression to this pain. It is generally in the back part of the head and region of the spine. Muscular contractions occur and these are exceedingly painful to the patient. It is not uncommon to find a patient who recovers complaining ever afterward of a tender spine. This is true with all cases of meningitis. A serious case of meningitis, like a case of pleuritis, does not entirely recover, or at least there are some deformities remaining, which are predisposing causes to after attacks of inflammation. A case in point—A girl sixteen years old, in school at Oberlin, slipped upon a stone and struck the spine just below the scapula. She had then quite a severe attack of spinal meningitis and was obliged to give up school. I have treated her in the last fifteen years for at least three serious attacks of spinal meningitis; she has never entirely recovered from tenderness of that portion of the spine. These cases are liable to troubles of the internal organs. We have

bronchitis or bronchial pneumonia, and derangements of the kidneys; the heart is affected,—there is scarcely an organ which is not liable to suffer from the effects of this disease and I have noticed during the prevalence of an epidemic that every person who is sick from any cause is liable to have some of these symptoms. Take a case of pneumonia, you will find the spine tender and other symptoms of this meningitis. It may be the case as it is in croupous pneumonia, that a large proportion of the healthy people have the germs in the system and whenever there is trouble they make themselves manifest.

Treatment.—For the hemorrhagic cases there is not much treatment—they die anyway. The hemorrhage has taken place and the damage is done by the time you are called, but in the other cases they are to be treated like cases of ordinary meningitis. In regard to the use of cold there is a difference of opinion. I do not use cold compresses during the primary stage. Bags of ice or ice water applied to the spine and occiput, or possibly the crown of the head, are well enough if the patient can stand them. If they are used they must be continued for a considerable time without interruption; you cannot allow the surface to become thoroughly warm every hour or half hour. You are to judge somewhat by the amount of fever the patient has. A great deal of harm is done when the temperature goes down to 102 and the ice applications are kept up, but if the temperature is above 103, as it frequently is in the first stage, there can be no harm in using cold applications for perhaps twenty-four hours; then they are to be removed entirely. They can be repeated provided the temperature goes up, but if the temperature is 102 or below I do not use cold applications. Then I would prefer the warm sponge bath, allowing the water to evaporate.

The remedies which are indicated in the first stage depend somewhat upon the combination. Dr. Fisher says that Gelsemium is a better remedy in warm climates or where we have remitting fever. He practiced in Texas, and probably that is where he gets that idea, but in cold climates Belladonna is the better remedy. Where there is a tendency to prostration Gelsemium is the better remedy, but if you have intense frontal headache in addition to the occipital headache, and also a tendency to stupor, Belladonna would be the better remedy. Where there is great fear of death and restlessness, Aconite would be indicated. You can do very much in the first instance, if hemorrhage has not already taken place, with one of these three remedies—modifying to a great extent the subsequent inflammation. This is the time that you can do most good. Unless these patients get well the first week, they are going to be sick a long time—they will have fever for

four or five weeks and then they will get up very slowly. Bryonia is a remedy of great importance following this active stage, the symptoms for which I have given you many times. Hyoseyamus is a remedy which I use with considerable benefit, where we have active delirium and possibly loss of control of the bladder and rectum. Apium Virum—in some of the cases of scanty urination, and with the herpetic eruption. Where we have the skin symptoms which are common, Apis will do considerable. Sulphur in some of the cases of bronchial irritation, with a great deal of dyspnoea; where the case does not clear up properly you will find this of great value. You get often a broncho-pneumonia and Tartar Emetic or Phosphorus would be indicated.

You are to be strict with these patients. Be very positive in your instructions with regard to diet and when the patient is getting better he must be exceedingly careful about what he attempts to do. Many of these cases have relapses from some undue mental effort, and in consequence they may have an attack, due to hemorrhage from the vessels which had been affected by a previous congestion. With such intense engorgement of the vessels they become dilated, the walls become affected in consequence and as a result we are liable to get rupture at any time.

I would like to see an examination of the blood in these cases conducted for the purpose of determining whether this is as positive a guide as it is claimed. If it is, it is of great importance to all of us. Typhoid fever is indeed difficult of diagnosis; the incipient stage of typhoid is so masked that it is almost impossible to determine and that is why cases of typhoid are not reported. I know one week there were seven cases reported and six deaths. That would be rather unusual, and the meaning of it was that they did not report the cases until they saw they were going to die. So in this disease, it is of such great importance that you are to watch with care the history of a case that you know to be in your vicinity. You should endeavor to ascertain the cause of every case of sudden death in your vicinity, for may be the next case may be a client of yours, and it means considerable whether or not you will be able to say, "This is a case of spotted fever and I do not think you can live." But if you do not know what the trouble is, it proves a serious matter. On the other hand, you must not repeat the decision made by one physician whom I knew in this vicinity a number of years ago. He had a case which he was treating as typhoid fever. He called counsel and was told it was spotted fever and after that almost every case he had was of that character.



CHAPTER III.

DISEASES OF RESPIRATION AND CIRCULATION.

The affections which you will be called upon to treat most commonly at first will be those of the organs of respiration and circulation, and these constitute a large proportion of the diseases which the physician has to treat throughout his professional life. Many of these are of a sub-acute character. Accuracy in the diagnosis of such cases is exceedingly important to the beginner, and this habit needs to be cultivated daily in order to attain any degree of success, for success in diagnosis requires the constant training of ear and finger. These diseases are generally demonstrated in one way or another, and so the accuracy or inaccuracy of the diagnosis will be learned sooner or later.

EXAMINATION.

There are five principal methods of examining the chest, namely: (1) inspection, (2) mensuration, (3) palpation, (4) percussion, and (5) auscultation.

Inspection.—The normal, healthy chest is well rounded, there is no depression beneath the clavicle, the movements are uniform and symmetrical, and respiration is quite passive. You can judge by the eye of any variation in the chest. A “tubercular” chest is flattened in the upper part, and the clavicle stands out, so that you can almost crowd the tips of the fingers beneath it. Besides this, it is usually contracted so that the patient is round-shouldered to some extent, though round shoulders do not necessarily indicate lung trouble, but may be produced by arduous labor, such as much lifting or stooping. In many cases there is an excessive posterior development. Ordinarily we would not regard a flat-chested person as being as free from disease as one who was round-chested. If the air-cells become contracted, they are liable to become diseased, the apices, particularly the left apex, most frequently becoming the primary seat of Tuberculosis. In emphysema there is an extra development of the lung. It increases the size of the chest, and makes it so much more rounded or barrel-

shaped that it hides the clavicle. You can test this by measurement, and by observation you will find that although the chest is full and rounded, the contractions and expansions of inspirations are very slight. The breathing is rapid, but superficial. Sometimes we find one side of the chest contracted and the other enlarged. It is the rule that the healthy lung assumes increased activity when the other is diseased. In hydrothorax, the lung may become so small as to be perfectly useless, being compressed into a solid mass by this collection of fluid within the cavity and then the opposite lung is obliged to do all the work. If the fluid is discharged by any means, the compressed lung never regains its normal size. The chest wall collapses, and the patient leans toward that side. This would also be the case in extensive abscess of the lung. The healthy movements of the chest are uniform, especially in men, but in disease this is changed. Sometimes the change is largely abdominal, indicating that the diaphragm is acting much more than the intercostal muscles. This is common in the inflammatory affections of the chest, where the chest is kept quiet to protect the painful part. It may be that the lung is hepatized or the pleural cavity filled with water, so that movement is impossible. On the other hand, we get an extra costal movement in inflammations of abdominal viscera. In cases of extensive peritonitis you will observe very little abdominal movement, this restriction of movement protecting the injured part.

Mensuration.—This consists of the measurement of the chest. The first measurement is taken at the fourth, and the second at the seventh rib. From the first we get an idea of the fullness of the chest. If the measurement at the seventh rib is thirty-six inches, the measurement at the fourth rib ought to be about thirty-four inches. We make, moreover, measurements at the seventh rib after forced inspiration and forced expiration, and from this we learn the amount of expansion. At the same time, we notice whether both sides expand equally, and if doubtful, measure each side, running the tape from the xiphoid appendix to the spine. It requires a little education on the part of the patient, to properly expand the chest, and practice increases the chest expansion materially; this must be remembered in making measurements. No exercise is more helpful than chest expansion, carefully and moderately taken, and this practice is doubtless a preventive of tuberculosis and similar ills.

Palpation.—This method, consisting of examining by the hands or tips of the fingers, is important. We can learn some things better in this way than in any other. By placing the hands on the chest while the patient is speaking aloud, we feel the vocal fremitus, which

is alike on both sides in health, but differs in disease. This vocal fremitus is increased by hepatization of the lung. In hydrothorax or accumulation of fluid within the pleural cavity, it is diminished. You can also ascertain by this method the presence of the bronchial rale. By this means you will be able to learn whether the extension is symmetrical. The lower part of the lung first hepatizes and it is here we first detect the accumulation of fluid. Sitting behind the patient, hold the palm of the hand in the axilla and direct him to take a full inspiration. You may thus detect any deformity of the chest. Any tenderness or sore spots upon the chest are due to diseases of the skin, periosteum, bones or structures within. The nearer the surface the soreness is, the more will superficial palpation detect it.

Percussion.—This method can be much more extensively used, and its practice requires much study and care. We percuss the chest directly with the hands, or indirectly with various instruments. The object of this practice is to learn whether there is an excessive amount of fluids or solids in the chest. The normal chest is resonant, the extent of the resonance being dependent upon the thickness of the chest wall. Over the scapula or in the axilla you will find to be the best places. Dullness indicates the presence of fluids or solids. The difference is detected by vocal fremitus or percussion of the chest wall in varying positions of the patient. If liquid is present, the lung will float in every attitude, and if liquid is not present in the pleural cavity, you will get resonance at a point where you previously got dullness in a different attitude. In serious cases, where it is necessary to learn the character or presence of fluid, the aspirator may be used and fluid withdrawn, if present. An ordinary hypodermic syringe may be used, applying it right above the upper margin of a rib, and withdrawing the fluid, but if pus is to be withdrawn, it will be necessary to use a larger needle.

Auscultation.—This is the chief method of diagnosis. The ordinary healthy vesicular murmur is a breezy sound which all should understand. To examine the chest with the ear, do not have more than one thin covering between the chest and the ear, and the room should be warm enough to permit this freedom from covering without injury to the patient. No tight clothing should be allowed around the waist when this examination is being made. After these preparations, proceed systematically to examine. Commence at the clavicle on the side which you suppose to be healthy, and trace downward until the diaphragm is reached. Then examine the opposite side similarly. To do this, I would prefer to have the patient sit in a steady frame chair, quietly. Examine the chest from the axilla

vertically to the diaphragm, posteriorly from the scapula to the diaphragm, and then in the suprascapular region. If the sounds heard are unsatisfactory, have the patient take full inspirations until they are heard clearly. Beginners should not use the stethoscope. If a sound is heard which cannot be understood, retrace your steps and examine the part under different conditions, perhaps using the stethoscope. The kind of rales differ. They are generally produced in some portion of the air passages. A dry rale, which is dryer than normal, is a whistling, ringing, creaking sound, dependent upon the peculiar shape of the tube. Then we get moist rales, due to the presence of fluid. The rales are coarse or fine, according to the tubes in which they originate. You must not be deceived about the location of the rale by hearing it all over the chest. Sounds produced in the larynx or trachea may be heard all through the chest, the rattling produced in the trachea likewise. Sounds produced in the larger tubes on one side are heard all through that side. If the vesicular murmur, as well as the rale can be heard, the air cells and bronchial tubes are not affected. In hepatization, the vesicular murmur is absent, but the sounds of breathing as well as voice, are conveyed to the ear. Bronchial breathing is of the kind confined to the bronchial tubes. In hydrothorax there is an absence of all sounds, but in a solidified lung, the sounds of breathing and of the voice are increased.

HAY FEVER.

There is a kind of Asthma, Hay Asthma or Hay Fever, occurring in the Summer which has some symptoms different from the ordinary. It is supposed to be due to the inhalation of the pollen of some plant. It has been laid to the rag weed more than anything else, but this is questionable. This disease prevails in August and September, and it is singular that in some cases it returns at exactly the same time every year. This has, besides the dyspnoea, considerable irritation of Schneiderian membrane; there is considerable irritation of the nose and eyes; and with this, there occur in many cases, spasmodic attacks of dyspnoea which are quite severe. The genuine Hay Fever cases are relieved as soon as the first frost appears. This would seem to prove that it is of bacterial origin. There is in these cases always a fever, especially at first. A chilliness, followed by fever, is the rule. Many cases of Asthma originate in an attack of Hay Fever. After that, occasional attacks of Asthma may occur. These cases are almost invariably relieved by living near the water, on the lake shore or sea shore, doubtless because less of the pollen is inhaled. Patients experi-

ence relief on islands. Many persons are obliged to leave their place of residence every year on this account. The pine woods are supposed to relieve it, hence the pineries of mountainous regions are popular resorts for these people.

Treatment.—The treatment of Asthma consists of relieving the paroxysm and the symptoms occurring during the interval. In ordinary Hay Fever, something will be required to reduce the primary fever, and Aconite will do it to a considerable extent. When the fever is remitting, Gelsemium will be a better remedy, and its use can be longer continued than Aconite. The cough of Asthma should be treated similarly to that of Bronchitis.

Sulphur is one of the best remedies we have for asthmatic coughs, and for Asthma itself. In many of the mild cases it gives prompt relief. Phosphorous is of considerable value in these coughs when the larger tubes are involved, and there is aggravation by smoke or dust. I have used in Hay Fever and other forms where the spasm is the predominant symptom, with very little of the bronchial cough, the Pothos Fœtidus or ordinary skunk cabbage. It is a valuable remedy in the Asthma of the young; the best remedy we have in spasmodic croup; it is also of value in the Asthma of dentition, (which is a false Asthma) and spasm of the glottis. In these cases, the child is awakened from a sound sleep, and becomes cyanotic, with a sound like the crowing of whooping cough. This disease is not serious ordinarily, but sometimes produces convulsions and death in small children.

You may be called upon to give Tartar Emetic or Bryonia in these cases, and Ipecac is of value where you have a loose, rattling cough. Tincture of Lobelia in drop doses during the paroxysm, gives relief. Stramonium is a good remedy in some cases, mostly in the young, where you have other indications; perhaps a tendency to general convulsions; severe pains in the head, or the flushed face, which is characteristic of this remedy. In extreme cases, I have resorted to Sulphate of Morphia to relieve the severe paroxysms. I would advise very strongly against its use in most cases, but in very severe cases, ordinarily a quarter-grain taken at bed time will produce considerable sleep and relief of the paroxysm, and I have occasionally given that much for several nights, accompanied by the selected remedy, until the patient was considerably relieved. If the stomach is much disturbed, it can best be given hypodermically, but do not use it indiscriminately, and when used, let it be for only a moderate length of time.

True Emphysema involves only a small portion of the lung, while in false emphysema the whole side of the chest is involved. The latter

is the more common. In a good many cases of Asthma death results from emphysema. Severe attacks are more serious in childhood than in later life.

TONSILLITIS,

Tonsillitis or inflammation of the tonsils is a very common affection. It occurs in connection with other inflammations of the throat. For instance, we rarely get a case of Pharyngitis, whether from a specific cause or from a cold, without inflammation of the tonsils, but we get an independent inflammation of the tonsils, and of this I wish to speak. Here the primary inflammation is in the tonsil itself. We have two varieties of this inflammation, one of which is confined to the superficial tissues, to the mucous covering, and extending to the follicles, but not involving to any great extent the parenchyma of the gland—a superficial Tonsillitis which is usually the result of a cold. This ordinarily affects both tonsils alike. You will find the tonsils somewhat swollen, and within twenty-four or forty-eight hours you will find little points of a whitish deposit upon the surface, which are circumscribed and single, as a rule. These are important for the reason that they are frequently mistaken for a diphtheritic membrane, which is usually deposited in a patch from its single center, and gradually extends until the membrane covers the whole gland.

Treatment.—It is a common affection and the ordinary remedies for cold are sufficient. Aconite or Belladonna, followed by Kali Bich or Mercurius Proto., according to indications, will be all that is ordinarily required.

QUINSY.

Quinsy consists of a more serious form of inflammation of the tonsil, in which the whole gland is involved,—a parenchymatous inflammation which rarely affects both tonsils at the same time. I have seen a few cases in which both tonsils were involved, but this is unusual. A first attack predisposes to a second, and generally we find the history of a case to be that the patient suffered almost annually from Quinsy. They dread it on account of the accompanying pain, for it is more painful than dangerous. The swelling extends to the soft palate and the tissues of that side of the throat. There is a good deal of infiltration; the swelling carries the tonsil beyond the median line, so that deglutition is impossible and the patient can only swallow anything by allowing it to run down the throat. He cannot influence the muscles of the throat. On the outside the swelling fills the hollow space below and beneath the angle of the jaw. It has to

be examined with considerable care to get a view of it. Where there is the amount of swelling that I have described, it invariably terminates in suppuration. It may be on the posterior surface and beyond your reach, but ordinarily you can detect fluctuation by passing the tip of the finger back as far as the tonsil. When suppuration has taken place, you have a well-marked fluctuation. The proper treatment would be to evacuate the pus by lancing from without inward,—I mean toward the middle of the mouth, to avoid vessels. But there are many cases in which lancing is unsatisfactory for the reason that the pus occupies the posterior part of this swelling and you do not reach it unless you pass through quite a thickness of this inflamed tissue, and but little of the pus is discharged,—a few days later it will break and relieve the pain. Ordinarily I let them rupture of their own accord. They recover better after it, and the mucous membrane is not remarkably tough, but ruptures readily. But if you can see the point where the pus comes near the surface, and can detect marked fluctuation, lance. Frequently there is more than one collection of pus, so that the patient does not get relief from the discharge of one and it may be days before the other abscess breaks and discharges.

Treatment.—The treatment for this is to give either Aconite or Belladonna in the first stage, and I usually apply externally a large poultice of flaxseed or slippery elm, frequently changed, and warm as can be borne, placed over the angle of the jaw, and held in position by a bandage about the head. I endeavor to have the patient take milk as nourishment. Frequently he goes several days without food, but if he is well nourished, this will be of no particular injury. I would avoid the taking of any solid food or anything irritating,—salted broth or anything of that kind. After the primary stage has subsided, Hepar Sulphur is the main remedy. I have known of a number of cases where the return has been prevented by the use of Hepar Sulphur as soon as premonitory symptoms, stiffness of the neck and pain in the tonsils, were noticed. A powder of the 6x every two hours will prevent a return of the trouble in some cases. Sometimes you will get indications for Kali Bich. For the induration of the gland, after it is broken, there is probably no better remedy than the Iodide of Mercury, to be continued for some time. These cases have to be carefully guarded to prevent a return of the trouble. For the indurated tonsil, Baryta Carb is said by some to be a valuable remedy. I have used it somewhat, but have not been entirely satisfied with it.

LARYNGITIS.

Laryngitis is a common affection. Ordinary acute laryngitis is produced by exposure to cold or a damp atmosphere, by extension of inflammation from above or below, by the inhalation of a foreign substance in the atmosphere, or by some constitutional influences such as we get in infectious diseases, as the eruptive fevers and diphtheria. We get also inflammation from tuberculosis, Bright's disease and carcinoma. These latter, however, are more frequently sub-acute or chronic in their nature. Acute laryngitis, or what we term croup, is a very common disease of childhood. It does not usually affect a child over a year old, but if it affects him after that time he generally continues to have it until he has reached the age of puberty. We find occasionally adults suffering from acute laryngitis, but it is due ordinarily to some other exciting cause. It is quite common among public speakers and singers and those who use the voice in the open air. George Washington died of it—that is, he died while he had it, although his death was supposed to be caused by exhaustion from venesection.

The symptoms of this disease are well marked. A peculiar crowing, barking sound, which is recognized very easily by anyone who has ever heard it before; coming on suddenly during the night, it is very disturbing to the nurse or mother and frightens them; many cases seem much more severe than they really are. Those cases coming on suddenly are generally of a mild character; they are more spasmodic than inflammatory. Writers have divided this disease into membranous, catarrhal or inflammatory and spasmodic. I hardly think that this classification is justifiable for the reason that we have some spasm in all varieties. We have a variety of croup in which spasm is the chief symptom. The ordinary croupy cases which occur almost every night during the Winter season consist of a catarrhal inflammation combined with some spasm of the muscles of the larynx. The child, perhaps, after getting its feet wet in the snow, goes to bed feeling as well as usual, or possibly the mother may be a little suspicious that there is something of that kind going to happen and she is watchful and listens for anything like the croupy cough. The child is awakened at night with a hoarse cough and considerable dyspnoea. It rouses up frightened, sits up until it becomes so drowsy that it cannot sit up any longer and has paroxysms of this coarse ringing cough. This, generally without any treatment, will become modified toward morning and possibly the next day the child will be reasonably well. The next night there is an aggravation and possibly the third



night; ordinarily two or three days is as long as a simple case of croup continues. We have but little fever in mild cases, but in the more severe forms we get a temperature of 102 or 103 degrees. Possibly this may come down during the day and go up again in the evening. The height of temperature is of considerable interest to the physician, as it indicates the degree or severity of the inflammation. In a case of spasmodic croup, in which the spasm is the chief characteristic, we would not have much fever, but in sub-acute croup and in inflammatory croup we have considerable rise in temperature. We watch these cases for at least three nights. You must not make up your mind the next morning after an attack that the child is all right, for it is most likely you will be called back again that evening and you are not to dismiss the case until the hoarseness has fully subsided. There is nothing to be seen about the mouth. The tongue is normal and the laryngoscope would reveal only a general redness of the larynx with some swelling. The child's voice is not natural; it cannot speak as loud as before or it speaks loud part of the time and then its voice is broken.

This is sometimes followed by sub-acute inflammation in which you get a cough which is very annoying and not quite as paroxysmal as in the first instance, generally aggravated when the patient goes to bed, and continuing many days and nights. The parents must be warned in regard to this. For instance, if the patient lives considerable distance from your place you state to them that if the child has a cough after the hoarseness subsides they are to let you know, otherwise they might allow the cough to go on for days or even weeks without consulting you.

Treatment.—The treatment for simple acute catarrhal or inflammatory croup is Aconite, the third dilution given in the usual manner, perhaps once every half hour if the case is severe. I use locally, when they will allow me to do so, a cold compress—three or four thicknesses of cloth made into a compress about two inches wide and four inches long, placed transversely over the larynx and held in position by a flannel bandage. Some people are so tender of their children that they refuse to do what you desire, and then if you cannot get them to use the cold water you can use the warm water. In a case of simple croup change this compress once an hour and the child is virtually well the next morning, in nine cases out of ten. Of course you are to give caution in regard to its taking more cold, with instructions to repeat this treatment the next night if the trouble comes on. After the fever subsides—ordinarily about forty-eight hours, if there still remains a cough, Spongia is the remedy and it is more frequently in-

icated than any other remedy after Aconite. It is to be given in the third attenuation. I have frequently, where the patient lived quite a distance away, left a bottle of Aconite marked No. 1 and a bottle of Spongia marked No. 2, and instructed the parents to give No. 1 when the attack came on, and if the cough continued to give No. 2. Possibly if they lived near me I would not provide them with the treatment of that kind, but some people are bound to give something, and I would prefer them to give Aconite rather than hive syrup. I do not use any oils upon the chest. I can not understand why they should be used. It is only because the parents want to do something that such things are used. For the cough which remains after the hoarseness subsides, a cough which is worse at night and sometimes paroxysmal, the remedy which I have used more than any other is Drosera. I do not mean for all coughs of croup but for this special laryngeal cough, sometimes paroxysmal, sometimes hacking for a considerable time, coming on when the child goes to bed and lasting for an hour or two. Hepar Sulphur is a remedy of considerable importance with hoarseness in the fore part of the day, where we are suspicious of some tubercular tendency. I have not used it very much. I think it is used more in sub-acute inflammation. It is used in cases of sore throat of preachers and speakers in public, where over-use is the exciting cause of the trouble. I have not attempted to give all the remedies which may be indicated in laryngitis. I have given simply the treatment which would cover the vast majority of cases and if you find anything out of the ordinary you are to "search the Scriptures" and find the remedy.

MEMBRANOUS CROUP.

Membranous croup is another variety and it is the great bugbear of all people. The first question you will be asked in almost all cases is, "Do you think it is membranous croup?" Possibly some child has died in that vicinity or maybe they have lost one of that family years before. A child may be taken in the midst of health, and die in a short time, so that all are afraid of membranous croup, and they have reason to be. Boards of health of various cities and States have decided that there is no difference between membranous croup and diphtheria. There has been a controversy going on in regard to this ever since I began the study of medicine. I always taught, and I believe it now, that there is such a thing as non-diphtheritic membranous croup, and I notice a number of the recent authors are coming around more to that opinion than before, but they claim that in view of the fact that it is difficult to distinguish the two it is proper

for the case to be quarantined. It is the case in New York, and I think it is the case here, that all such cases must be reported. My belief that there is such a thing as membranous croup which is not diphtheritic is based on the experience which I have had in the treatment of a good many cases. In the first place—there would be no prostration; the chief symptom would be the difficulty with respiration, the mechanical obstruction. The child otherwise would appear strong and vigorous, going about the house, taking a reasonable amount of food if it had no difficulty with breathing while eating. There would be no diphtheritic symptoms following, and no congestion. A physician would hardly be justified in isolating a case of that kind at the present time, but there is a possibility that the physician may be mistaken, and were he mistaken and others took the disease he would be censured for not isolating the case. Formerly I did not isolate the cases. I have had cases of this kind in a family of six children and as soon as the obstruction was removed the child was well. So far as the treatment goes—the homeopathic treatment, we do not need to distinguish between one and the other. The remedy which is most valuable in one is of equal value in the other. There are three symptoms of membranous croup which are characteristic. You can detect ordinarily the obstruction of the larynx by careful auscultation. In a fixed obstruction it appears equally during expiration and inspiration. There is just as much obstruction when the air passes outward as inward, provided the obstruction is produced by the presence of membrane in the larynx. In ordinary spasmodic croup the obstruction is only during inspiration. The child breathes outwardly all right, but inwardly with great difficulty. By placing the ear posteriorly and anteriorly you can hear this whistling sound both with expiration and inspiration. We get intervals of relief, in which the patient recovers normal color—the blueness is gone and the respiration becomes normal, but with membranous croup the trouble is continuous. There are a few cases in which the membrane extends upward so that you can see it in the throat. The child is extremely sensitive and he is terribly afraid of suffocation; any attempt to examine with the laryngoscope is to be avoided, if possible.

Treatment.—If there is much fever, which is not common, I would give Aconite. The remedy which I have found most valuable is Kali Bichromicum, and I have cured a number of cases of membranous croup with this remedy. I give the third trituration, ten grains dissolved in four ounces of water, a teaspoonful every half hour at first, then less frequently. I have given Kali Bich. in some cases of this kind for two or three weeks, for, after the membrane is gone, there

remains hoarseness—at least the vocal cords are not in a condition to be of any service; the voice is gone and the patient can only whisper. I have seen Bromine used successfully. It was quite a remedy with my preceptor. He used it in the second or third in the same manner in which I use Kali Bich.

At the present time, especially in the larger towns, there are some who advocate intubation or tracheotomy in all these cases. I question whether it is good treatment. While that can be resorted to in bad cases, quite a number can be cured without such means. Intubation is something which requires considerable dexterity, but one who is accustomed to using the tube can use it with very little risk to the patient. I have seen some trouble resulting from attempting to introduce the tube. The child is very easily suffocated with membrane in the larynx and cannot endure a shutting off of the air for a very great length of time. Tracheotomy is perhaps safer, but the parents generally object to this if it can be avoided. There are some reasons why intubation and tracheotomy are not successful. Frequently the disease extends lower than the point reached by the operation or you may get a membranous deposit in the trachea. Then you have possibly a capillary bronchitis. There is generally trouble beyond the original seat of inflammation, so that quite a number of cases that are operated die from these subsequent affections. These are questions which require the careful judgment of the physician. I do not believe in being controlled by surroundings, but you will have to be governed somewhat by those connected directly with the patient. I always consider the welfare of the patient first and then the people who are affected, but you have to treat them somewhat in accordance with their peculiarities. This question will come up in connection with any serious case.

DIPHTHERIA.

Diphtheria is one of the most important, as well as one of the most fatal diseases which we are called upon to treat. Whittaker says that the mortality is greater than that of measles, scarlet fever and typhoid fever combined. The disease varies in severity, some epidemics being much more fatal than others. Authorities agree that the Klebs-Loeffler bacillus is the direct cause. This disease, unlike the eruptive fevers of which we have been treating, does not exempt the patient from a second attack. While it does not often occur twice in the same person, it does occasionally, but far more frequently we get inflammations of the throat which are much more simple and are the result of this primary attack of diphtheria. Persons who have

had diphtheria will almost annually suffer from attacks of sore throat similar to it. The fever is not as great as in other diseases. A person can be exposed to diphtheria much more than he can to measles, small-pox or scarlet fever, without as much danger from contagion. The age at which persons are most liable to take this disease is from the first to the sixteenth year. Nursing children rarely take it. It frequently extends through the same family unless the case is very thoroughly isolated. Adults are not exempt, but it is often the case that the parents of an affected family do not suffer, although they are caring for the children all the time. Deprivation of food or sleep, as in all other diseases, increases the tendency to take it. The changes first taking place are noticed in the throat, or sometimes upon some excoriated surface where the epidermis has been destroyed. But the deposit for which we first look and expect to find, is in the throat. This is something like the croupous deposit in many diseases, which is difficult to differentiate. Upon examining the deposit, you will find it to be a thin, translucent film. The whole throat is red, and looks as though painted red and slightly varnished. This translucent film gradually becomes more opaque and extends over the whole surface. As a rule, it first appears upon the tonsils and extends to all the visible portions of the throat, pharynx, soft palate and uvula. In mild cases you may get a deposit only on the tonsils. It becomes limited after a while, gets thinner, curls up around the edges and gradually disappears from the mucous surface beneath. In the worst cases, where death occurs early, it seems to continue extending. Sometimes it becomes separated and torn away, perhaps by hacking and coughing, leaving a roughened surface devoid of epithelium; but almost invariably a second membrane appears upon this surface. If the membrane is removed before it is ready, it will reform, just as a scab on any surface will reform if removed too soon. The first treatment I remember consisted of forcibly removing this membrane and treating the sore with some such caustic as nitrate of silver. This had to be repeated again and again. Fortunately for the patient, this treatment has long since been abandoned. The color of the membrane will give you an idea of the severity of the case. In mild cases it gradually becomes yellowish as time passes, but in severe cases it is dark, then slightly brownish or finally black, on account of the admixture of red blood corpuscles or a gangrenous condition. The local difference between this and the membrane of ordinary croup is that it involves the deeper tissues. It is tangled among the deeper meshes and cannot be separated without destruction of the surface. A croupous deposit lies upon the surface more superficially. Frequently a por-

tion of the mucous membrane becomes necrosed and diseased, and is removed with the false membrane, leaving a deep ulcer. This never occurs in membranous croup. This may occur upon the uvula or some portion of the soft palate or upon the posterior wall of the pharynx. In exceedingly rare cases we get a membrane first in the larynx, though generally it appears secondarily, long after the primary membrane has disappeared. It may extend downward through the pharynx into the stomach, or through the larynx into the bronchial tubes, or it may form in the bladder, or rectum, or upon any mucous surface. Aside from the complications produced by the membrane itself, we expect such as are found in the eruptive fevers, i. e., bronchitis, pneumonia, pleuritis, endocarditis, pericarditis and albuminuria. It affects the nerve centers as well, and doubtless this accounts for the extreme prostration, which is not greater in any other disease. This prostration is a characteristic symptom at first, and it sends the patient to bed in twelve hours.

Symptoms.—General prostration and feeling of debility come first, followed by rigors and fever, the temperature frequently very high, not uncommonly 104 degrees at your first visit; this would indicate a bad case, while a temperature of 102 degrees or less would indicate a mild case. Vomiting is often an early symptom in young children. Vomiting is a primary symptom in scarlet fever, meningitis and diphtheria, and this is followed by sore throat. The throat may be insensible, so that the patient will not feel pain, although there may be great swelling and extensive deposit, but usually he will complain of sore throat. If the throat has this intensely red appearance and the case is quite recent, you will probably have a deposit in twelve hours. I have seen all the visible portions of the fauces covered by the membrane within twelve hours after the patient was taken down. Sometimes a mild case becomes a severe one for some reason or other, taking a new start and becoming much worse, but ordinarily when the membrane becomes limited, you will find the patient commencing and continuing to improve. Sometimes the case assumes a typhoid condition with delirium, brownish tongue, and sordes upon the teeth, and lasting from ten to fourteen days. The greatest mortality is during the first week. I have known of death occurring in forty-eight hours or less from time of first illness.

You are not safe when the membrane is gone, as there are complications which may follow. Paralysis is one of the most common of these and is very productive of death after the disappearance of the fever. Just how this occurs, we are not sure. There are two kinds of paralysis from which patients suffer and which the authori-

ties perhaps do not separate sufficiently. One is a mild and common affection, but the other is usually serious and fatal. The first kind chiefly affects the soft palate and it seems to me that this must be the direct result of the membranous deposit upon the surface, having so affected the nerves there as to make them useless. You examine the throat and find the soft palate hanging down like a curtain. If the child attempts to swallow fluid it will regurgitate through the nose. You can rest assured in most such cases that it is due to paralysis of the soft palate, and while it is usually simple, you cannot feel very safe in such cases. In the majority of cases, however, it does not extend any further. The other kind, where it affects some more remote part is a decidedly serious affection. The muscles of the back of the neck are perhaps most seriously affected. The child cannot hold up its head; it will fall forward upon the chest as soon as you straighten it up. This usually comes on some days after the fever is gone and you would think the child convalescing, but in nearly all cases where the complication comes on afterwards you will find that the child has no reactive power; his muscles are relaxed and he can hardly sit up at all. Here you may look for complications. There may be paralysis of the lower extremities; the gait is tottering and stumbling, and finally he cannot walk at all. This extends upward until the sphincters become involved, evacuation cannot occur or occurs involuntarily and the child may drop over and die suddenly. The nerves of respiration and circulation are sometimes affected and this may cause death. Numerous cases are reported where the child died while sitting in a chair, this probably being due to some degeneration of the heart. Diphtheria is a most deceptive disease. We can never tell anything about the future except that the patient may die. The case which looks the most favorable to-day may be the most unfavorable to-morrow, so that you will have to be extremely guarded in your opinion.

Rheumatism is not an uncommon accompaniment, or any inflammation which is liable to terminate in suppuration. There is a certain septic condition present which causes this result of inflammation. Hydro-thorax, if it exists, soon becomes pyo-thorax. Indicating this septic condition, we have extensive implication of the lymphatics, swelling of the salivary glands, etc. In severe cases this is great, and the whole anterior surface of the neck may be so swollen that you can hardly find the chin. There may be a putrid, purulent discharge from the nose, indicating extension of the membrane to the nares. Whenever you get these symptoms, the prognosis is usually unfavorable. Delirium is an unfavorable symptom; for in most cases we have a pretty clear mind, although the temperature is high. Exten-

sion of the membrane shows that the disease has not reached its limit. The re-formation of the membrane, or the formation upon a new surface would indicate severity of the disease. Another symptom which is almost universally fatal is the barking cough which indicates the extension of the membrane to the larynx.

While I would not advise you to report every case of suspicious sore throat as diphtheritic, in all cases in which there is deposit in the throat, anything like a membrane either upon the tonsils or elsewhere, you are to consider it a case of diphtheria until proven otherwise. Follicular tonsillitis is a disease which is most difficult to distinguish from diphtheria. If you wait twenty-four or forty-eight hours after noticing something like the membrane, this breaks up, separates into several little points nearly circular. That decides the case in favor of follicular tonsillitis. At the same time we do find cases of that nature, which, according to the best evidence we have, are sometimes diphtheritic. A case like this,—you are called to see a child with a temperature of 102 or 103 degrees and very much prostrated. He complains of not feeling well, and has sore throat, one or both tonsils swollen, but not intensely red, that is, not red enough for you to be satisfied that it is probably diphtheria. Upon the tonsil which is a little redder than usual, there is a little deposit that is not circumscribed though somewhat irregular. It is light colored—almost white and exceedingly thin. The diagnosis cannot be positive. It takes time to determine. With the appearance I have stated you have a right to call it diphtheritic, but if, instead of that you have the thin membrane broken up into little circumscribed patches with the appearance of normal, or nearly normal mucous membrane between, it is in all probability a case of simple follicular tonsillitis, the child will be running about the house the next day, the temperature down to 100 and almost well. Physicians have made themselves appear ridiculous by reporting such cases as diphtheritic. You report the case to the health officer to-day and when the policeman goes down to the house—to-morrow evening or the next morning—the child is playing around, able to eat solid food, and apparently as well as usual. So you see you should keep the case in doubt until you are quite well satisfied with regard to it. I do not know exactly how this arrangement of the general laboratory of the city is going to work. It seems to me that is placing a man's business in the hands of others, and if the decision is adverse to him he must change his treatment, even against his better judgment. If he is thoroughly satisfied that the case is one of diphtheria and the report is contrary he is liable to be criticised. It leaves the matter in doubt too long for ordinary business, it seems

to me. We have to decide long before we can get satisfactory tests from the laboratories. That is the case with other diseases as well, for instance, typhoid fever. We have two tests which are used for the detection of that fever, the test of the blood and that of the urine. Prof. Allen of this city has operated upon six cases of perforation of the bowel from typhoid, and in four cases these tests were negative. The most absolute and positive proof that it was typhoid was there; the decided condition of the bowel with perforation, which would have killed the patient, and yet these tests failed. Now we can guess better than that without the microscope. It is not a guess—clinical experience will guide you closer than that. You will have to depend, to a large extent, on your own knowledge of the case.

Treatment—In regard to the management of a case of diphtheria, isolation is imperative. There is no other disease in which this is so imperative, not even smallpox. While people are a little more willing to be isolated in smallpox, I think it is quite as essential in diphtheria. If possible the other children should be sent away from the house for it is almost impossible to keep a family of children still. If you cannot send the children away, place the child who is ill in some room which is remote from the balance of the house, and under the care of a nurse who is not related to the child,—some one who has not that anxiety that a parent or some other member of the family would feel. I would have the physician be very careful in regard to himself. There is no disease which is more dangerous to the physician or nurse than this. You should never visit a case of this kind while your stomach is empty. You should keep the stomach moderately well filled. Stimulants have no preventive influence, as some suppose. If the physician is tired and worried he is more liable to take the disease than otherwise. As you know I do not favor the use of tobacco in any form, but those who do use it could be pardoned for being well supplied at such a time. Even chewing gum would be pardonable. I thought of that the other day. I had occasion to look into the throat of a child sick only twenty-four hours. It was about the worst case I ever saw. The odor was terrible and I could not examine the throat without inhaling to some extent the breath of the child. Just for a moment I felt that apprehension that anyone would feel under like circumstances. I think that more physicians have died from diphtheria taken from patients than from all other diseases combined. Typhoid fever would come next.

The room should be kept at about 70, and the child covered with a reasonable amount of clothing. The room should be ventilated, but in some way without exposure to the patient. Some of these die from

congestion of the lungs from exposure of this kind. The throat should not be bundled up. I have found in some instances where there was swelling of the throat, relief from poultices, either slippery elm bark or flax seed meal, but it is not often that I use anything of this kind.

The treatment of diphtheria has changed very materially since I first knew about it. It was then the allopathic method to forcibly remove the membrane and cauterize the throat. Constitutional treatment was considered to be secondary. At that time the homeopathic physicians were relying almost entirely upon constitutional treatment. There were very few who used any local treatment other than perhaps cleanliness. A spray of alcohol was used by some. My preceptor never used anything locally and he was most successful in the treatment of this disease. He relied entirely upon constitutional treatment and did not use stimulants. He did not allow any solid food until convalescence was pretty well established. The treatment at that time was published in advance of the epidemic for some months, possibly a year. It prevailed in the eastern States before it came west, and had prevailed in Europe before that, so that the homeopathic physicians knew what they would prescribe. We had little pamphlets that were published from time to time by some of our leading men in this country, giving the symptoms for which they would prescribe certain drugs, and by studying these characteristics every physician fortified himself as well as he could before he was called to treat a case. The remedies which were used by those men are the remedies which we use to-day for the treatment of this disease.

I saw more diphtheria then than I have seen since. We have not much of it now and many of the cases are quite mild, but occasionally we find a malignant case. Generally the child is about the house and not known to be very sick. This child may be subject to tonsillitis and the family think nothing of it, but when the physician is called he finds that the patient is very sick. We have occasionally a family in which there occur several deaths in spite of everything. You will find this to be true—that there will be a certain number of cases of diphtheria that will die in spite of any treatment that you give. You will find quite a number of other cases that will recover without much treatment,—indeed, it is questionable whether any treatment would be required. Then you will find other cases which will be benefited by treatment.

The remedy upon which I have depended in the first stage was Aconite or Belladonna. With Aconite we get the restlessness which is characteristic of many cases of diphtheria, the elevation of temper-

ature and the full pulse. If on the other hand we have some cerebral complication,—stupor, a tendency to drowsiness, I prefer Belladonna, usually giving this remedy about forty-eight hours. Following that, the remedies are Kali Bich. and Iod. of Mercury. Kali is used in the third trituration, 10 grains dissolved in 4 ounces of water, given in one or two teaspoonful doses. The indications for this remedy are filling up of the throat, laryngeal irritation with continual hacking and attempts to clear the throat, with indifferent success, because the collection of deposit in the throat is extremely tenacious and hard to expel. We have not as much implication of the glands as with scarlet fever. Where we have this, the child wetting the pillow with the saliva, Mercury in some form is indicated, and the best preparation of Mercury which I have found is the Iodide, which I give usually in a small powder, one or two grains of the third placed upon the tongue and a little water given after. These two remedies follow well after Aconite or Belladonna. There are some other remedies which I have found beneficial, following Mercury. Phytolacca is probably as far as the glands are concerned, the most like Mercury of any vegetable remedy that we have. Phytolacca is indicated where we have considerable implication of the glands, and where there is extreme sensitiveness of the throat. This you will find to be a particularly common symptom with your patients. The throat is so exceedingly tender that they can hardly swallow. It hurts them to take food, and they dislike to have you examine the throat on this account. This is not a bad symptom in many cases, but an undesirable one. You find swelling of the glands on the outside of the neck and possibly some muscular pains.

Nitric Acid is a remedy very like Mercury in its effect. It has a tendency to sluggishness of the circulation, and ulcers form after the removal of the membrane. The teeth may be sore and tender or loose. Then we get an excoriating discharge from the nose, and the angles of the mouth are made raw by the discharge from the mouth. These cases Nitric Acid will cover better than anything else. For the paralysis there is no remedy equal to Lachesis. The child in attempting to swallow fluids will have them return by the nose,—paralysis of the soft palate. For paralysis of the posterior cervical muscles Causiticum is the best indicated remedy.

I wish to say one word in regard to the use of antitoxin in diphtheria. So far as I am concerned I have not had as much experience with this disease as formerly. There is a general tendency to adopt the use of antitoxin, but I am not thoroughly satisfied that it has done as much as is claimed for it. I confess that I am not as much preju-

diced against its use as formerly. In all my experience I recall just two cases of laryngeal diphtheria in which I had given an unfavorable prognosis where antitoxin was used and both patients recovered. You will be placed in positions where you will be almost compelled to use it. The laity have an idea that it is of great value in many instances and they expect a physician to use it. You will probably not see a case of malignant diphtheria for a year or possibly five years, and consequently you will not often be placed in such a position, but I am not satisfied now that other remedies will not do as well. My advice would be to stick to the homeopathic treatment as I have given it, for I believe that it is the best that you can do,—all things considered. If you find a case of laryngeal diphtheria or if you are compelled by the family to give it, then I would not object to advising it but be exceedingly careful about its use.

ASTHMA,

Asthma is not a common affection, but liable to attack persons of any age, most commonly, young persons, prior to puberty. The tendency to this disease is often hereditary, and we frequently find every member of a family subject to some extent to these attacks. Climate exerts a peculiar influence upon this disease which it is difficult to understand. For instance, a person suffering from Asthma in this region may remove to another region and be freed, while a patient from another region may move here and be relieved of asthma. Thus a change of location often brings relief. There are some locations, however, which are more beneficial to these patients than others. A high, dry climate is best adapted for them. Most cases are relieved by going to Colorado, New Mexico, or many of the mountainous regions of this country. Some of these cases improve as the child grows older,—it seems to “outgrow” the trouble, as it is termed. But very often the attacks become more frequent and severe until changes take place in the lung, making the case incurable. The principal characteristic of asthma is dyspnoea. This is paroxysmal, with considerable relief during the intervals. Sometimes the relief is complete between the attacks. The dyspnoea is due to the contracted condition of the bronchial tubes which prevents the entrance of air to the lungs. This contraction may be due to some nervous condition, some irritation of the nerve centers, probably acting through the pneumogastric nerve upon the circular fibres of the bronchial tubes. This is primary asthma. In these cases of bronchial irritation, the bronchitis is secondary to the spasm of the circular fibres. There is



another class of cases in which bronchitis is the primary, and asthma the secondary trouble; the former the cause, the latter the result. In the worst cases of bronchitis dyspnoea may be extreme at times. We often find cases of chronic bronchitis in which the greatest discomfort is from the accompanying attack of asthma. The dyspnoea is more distressing than the cough, but as soon as the cough disappears, the dyspnoea is relieved. The influence goes deep enough to involve the muscular coats of these tubes, hence the spasm. This is not true of all cases, as we have many severe ones without any dyspnoea. The injurious effect upon the lung is due to the pressure of the air which cannot escape, or to the absence of air which cannot enter, the air cells becoming overdistended and enfeebled to such an extent that we have what is termed false emphysema. This may go still further and the air cell become ruptured, the air escaping into the parenchyma of the lung. This is termed true emphysema. In advanced cases of asthma we have the barrel-shaped chest with inability to contract the chest to any extent. The lungs are full of air, but the contractile power is gone. When you find a case of that kind, you may rest assured that there is considerable emphysema, either true or false. We sometimes have attacks of lobular pneumonia because this air acts as an irritant upon the lung, and while it is exceedingly rare that we find destruction of the lung, I have seen cases in which it broke down and abscesses formed. When a case has advanced far enough to develop much emphysema, you cannot hope for material relief, but the asthma of the young, when none of these changes have been developed, is ordinarily a curable affection. Indeed, the prognosis in asthma is usually favorable.

Symptoms.—The symptom of asthma is this dyspnoea; it is not often that we have fever, so there is no marked acceleration of the pulse, except as it is influenced by the attack; the temperature, as a rule, is normal, except in cases where bronchitis complicates; attacks usually come on at night, and are aggravated by the recumbent position, hence patients do not attempt to lie down when they expect an attack. These severe attacks never become fatal, for if they cause the patient to become unconscious, the spasm is relieved.

Treatment.—Anything which will relieve the spasm, will temporarily relieve the attack. Most domestic remedies do this by anæsthetizing the patient. The powders which are burned contain mostly Stramonium, Lobelia, or Nitrate of Potassium. Inhalation of the smoke from these temporarily relieves the spasm. A cough is usually present in asthma, although in some cases it is moderate. In the bronchial variety we get profuse expectoration. When a person has

found a climate in which he is free from this disease, he had better remain there, for a return to the old climate may cause a return of the disease.

BRONCHITIS.

Acute bronchitis, like laryngitis, comes from exposure to a cold or damp atmosphere; from sudden changes of temperature; from the inhalation of foreign particles; from poisonous matter in the atmosphere, or in connection with infectious disorders. Probably the most common cause at the present time and for the past ten years, is la grippe. We have it with measles particularly, less frequent with smallpox, and still less with diphtheria and scarlet fever. It occurs in connection with tubercular disease particularly, and at times with Bright's disease and carcinoma. A general sepsis is liable to develop it. The trouble may be located at any part of the bronchial tract, rarely occurring without some involvement of the trachea or of the lung. Some of the lobules of the lung necessarily become involved in every case of acute bronchitis, so that lobular pneumonia is a very frequent accompaniment of this disease, and broncho-pneumonia is the proper term to be used in connection with a large number of cases. This occurs by extension of the inflammation from the original site. It is more liable to affect the tubes of the lower portion, than the upper and middle tubes, thus occupying the inferior portion of the chest. It is not common except in tuberculosis to get inflammation of the tubes which convey air to the apices of the lung.

The symptoms which indicate an attack of this kind are fever and cough. Pain is not common. We frequently have pain from the severity of the cough; congestive headache occurs and the muscular wall of the chest occasionally becomes involved, so that we have pains in the chest on account of the excessive coughing. Occasionally we have intercostal neuralgia. These pains, however, are not as frequent as the pains of pleuritis, which are occasionally excited by excessive coughing, and by extension of the inflammation from the lungs. In that case we would have a pleuro-pneumonia. The changes which take place in the tubes if the disease continues any length of time, are liable to be permanent, or to last for so long a time that the patient is liable to frequent acute attacks. There is probably no catarrhal inflammation which so frequently degenerates into a sub-acute form and becomes a lifelong trouble to the individual as this, so that the patient cannot be exposed to any sudden change of temperature without producing cough. In other words, one attack predisposes to another. This is common with all catarrhal inflammations. Among the changes

which we find in the tubes are swelling of the mucous membrane, a thickening which in the smaller tubes becomes sufficient to produce obstruction, and consequently the air cannot pass to that portion of the lung which ordinarily would be supplied by these tubes. As a consequence the air cells become excessively dilated, the air being allowed to enter but not allowed to escape, until the air cells are either distended to their utmost capacity or else ruptured. This is what we term emphysema,—false emphysema when they are not ruptured, true emphysema, when they are. This condition may remain for a considerable time, or the cells which have become isolated on account of this condition may be collapsed, then we have a total loss in that section of the ordinary respiratory power. That part of the lung is unable to perform its function, so that we find in cases suffering from frequent attacks of acute bronchitis spots of the lung collapsed on account of this obstruction in the tube. The tube may become so affected by the inflammation that it loses its contractile power, and becomes dilated, and we have an enlarged section of the tube which becomes filled up with mucus or muco-purulent matter which cannot be expectorated. This is more liable to be the case in feeble individuals, and is not common. There may remain a thickening of the tube which is not sufficient to produce obstruction, the moisture being gone and the secretion not there, it remains in a state of congestion, liable at any time to take on inflammation again. In tuberculous bronchitis is quite common, but in syphilis rare. In the tubercular form and in the septic variety of inflammation we are liable to have ulceration. A destructive ulceration may take place which produces an opening leading into the lung. A cavity is formed which may gradually contract and heal up or it may lead on to further obstruction. In old cases of tuberculosis we find that many of the tubes have become thus destroyed. Tuberculosis begins occasionally in the larynx, but this is not the most common form. There may be excessive destruction of the larynx before the lung becomes involved, or possibly you may have tubercular laryngitis and bronchitis with an extensive deposit of tubercles in the lung—miliary tuberculosis,—and when the lung goes, it goes all at once. These are not common, but we find some cases. There is a condition in which we have a remitting fever continuing almost any length of time. I visited a case of that kind last month, a case which had a family history of tuberculosis, and a history of several attacks of bronchitis. This one seemed something like those which the patient formerly had, except that she had fever, which was aggravated every evening, reaching 102 or 103, but with considerable prostration, a red tongue

and derangement of the stomach. That is a case where the microscope was of the greatest value. The examination showed the presence of tubercular bacilli in two examinations made and there was no doubt but that this was a case of tubercular laryngitis with bronchitis, which had come on some months before and was unnoticed from the fact that previous attacks of this kind had existed. I have seen a number of cases of the same character, so that in all cases you are to be on your guard with reference to tuberculosis.

The symptoms, aside from the cough, are the fever, hoarseness—a deep seated hoarseness which is characteristic of bronchitis, especially if it occupies the medium sized tubes or those near the trachea; a sense of weight upon the chest; cough, aggravated by the inhalation of dust and smoke, and as a rule by talking, singing, laughing, or the inhalation of cold air or anything which irritates the bronchial mucous membrane. At first the cough is dry, with very little expectoration, or if anything is raised it is mucus, streaked with blood, different from the sputum of pneumonia, in which the mucus and blood are so thoroughly mixed that it is of that rusty character about which you have read so much and which is considered pathognomonic of pneumonia. When the mucus is blood streaked it comes from somewhere above the lung. A little later, if the case progresses favorably, we get a muco-purulent sputum, becoming quite profuse for a time, the cough of course lessening in severity. There is a sense of relief from the cough, while at first there was no relief at all, and after the patient has expectorated quite freely, he has a rest for a considerable time. Occasionally we have a patient who is so weak he cannot raise this, or it may be so far down or the lung so much impaired beyond the point for the entrance and exit of air to the lung that the patient cannot clear it. A great many of these weak, feeble individuals die because of this blocking up of the tubes. That is often the cause of death in capillary bronchitis. In old persons you will find the same condition. You place the ear to the chest and you hear the moist rales. It is distressing to hear this. A strong vigorous person can clear it out, but a feeble person cannot do that. It gradually subsides in favorable cases and the patient usually recovers in two or three weeks from quite a severe attack of bronchitis. Occasionally there occurs a renewal of the trouble from exposure to cold.

In regard to the physical signs of bronchitis, we can determine most by auscultation. The ear is the best means of detecting this trouble and I feel like repeating that you should never be contented with an anterior examination of the chest. The patient may have con-

siderable bronchitis or broncho-pneumonia and if you examine anteriorly you hear nothing at all. You may hear a few moist rales, but by placing the ear laterally or posteriorly under the angles of the scapulæ you will hear all the different kinds of rales that we get with this disease. At first the rale is dry. The whistling, crackling sound will become moist. If the patient has suffered from previous inflammation you get dry and moist rales at the same time. Ordinarily the rales become softer, moister, and perhaps after the patient has coughed for a long time the tubes may be comparatively clear and you can hear very little, so the better time to examine would be after a period of rest. Then you can detect these various rales. Capillary bronchitis presents a different train of symptoms. You have very fine rales, moist or dry as in other cases, so fine that you can hardly distinguish them from the crepitant rale of pneumonia. I believe there is a difference between the sounds produced in the smaller tubes and in the air cell—that the finest crepitant rale is heard only during inflammation of the lung. If you wish to be positive in regard to that you should listen for the vesicular murmur. If the trouble is confined to the bronchial tubes you will hear the vesicular murmur also to a considerable extent, but if it originates in the air cells the vesicular murmur would be replaced by this sound, providing there was a considerable extent of the lung involved. The finer the rale the more serious the trouble as a rule. Capillary bronchitis is a much more dangerous affection than ordinary bronchitis. As far as percussion is concerned, you obtain no sounds which are abnormal. Palpation may detect primary bronchitis which I have described. It is something like the tremor produced by the voice. Occasionally we have bronchitis in connection with pleuritis and hydrothorax and then we have to distinguish between one and the other. You cannot expect a disease to be limited by anatomical lines. For instance, a bad case of bronchitis can involve a portion of the lung; a case of pneumonia affects the pleura to some extent. I have listened very carefully to the chests of children suffering from whooping cough, from measles or from croup with bronchitis to see if I could detect some of these fine sounds. Take for instance a case of whooping cough. Ordinarily it is not a very serious affair. People do not dread whooping cough and they have but little treatment. The child has paroxysms of coughing and between them it is quite well, but there comes a time when the child appears to be sick and has fever, the cough is not entirely satisfactory and is not quite as paroxysmal as before, and these paroxysms do not relieve. You examine the pulse and find it extremely rapid. You take the temperature and find it considerably

above normal. The indications are that the trouble has gone beyond the ordinary limit of whooping cough. Place the ear over the chest and you detect this crepitant rale. Then you know that this child has had extension of the disease. It is a case of capillary bronchitis, which is a serious affair, and you are to so inform the people and treat that case independent of its origin. Here is a point which is well worth remembering. Do not pass a child by without examining the chest simply because it is a case of whooping cough. These sounds are heard so readily and are so well marked that it is not necessary to expose the patient every day to find a possible extension of the trouble, as you can examine over the ordinary clothing.

You can tell something by the frequency of respiration. If you have a nurse I would advise that the respirations be counted. The pulse should not be counted after severe paroxysms of coughing because it might be twenty beats faster. The temperature is not as much of a guide in capillary bronchitis as it is in other diseases. Frequently we have such interference with the oxygenation of the blood in these cases that the temperature is lower than we would expect on account of the severity of the trouble. It is not uncommon to find a case of capillary bronchitis with a temperature slightly above normal and the pulse perhaps beyond counting.

The chronic variety of bronchitis presents these same symptoms in a modified form; excepting in tubercular bronchitis we rarely have any great elevation of temperature, and we judge very carefully by that. In some of these old cases where you are called you will find the patient has been coughing two or three months, and the temperature will be normal or perhaps slightly below. That of course would contra-indicate tuberculosis. The pulse would be exceedingly rapid there. Ordinarily you find a pulse in old persons perhaps not above 75 or 80 with a temperature which I have described, and this might be the case in younger individuals, and you say to yourself, "I cannot believe that it is tubercular." That is the principal thing you want to know. Cases that are non-tubercular recover, neither is tuberculosis the fatal disease we formerly supposed it to be. The sputum would indicate somewhat the nature of the trouble. Of course the proper way to examine the sputum is by the microscope, and I place great reliance upon this. I would not depend upon any examination altogether. The symptoms of the case would indicate perhaps that it was tubercular. The patient has a hectic fever. Perhaps there may be profuse perspiration at night, or it is barely possible that there was hemorrhage at one time. Patients frequently conceal this fact. It is particularly dreaded in families where a



number of persons have died from it; even in a case of that kind with those predisposing influences, with hectic fever, profuse perspiration, and possibly a history of hemorrhage and great prostration the microscope is sometimes negative with reference to the tubercular bacillus. I would have another examination, and another, taken at different times of the day. Generally after two or three examinations we have positive proof of what we suspect. I take it that the patient frequently expectorates from the throat or from the larynx which is not diseased, or from some other section which is free from the trouble; it is not every time he expectorates that he raises anything which contains the bacilli.

Treatment.—In regard to the treatment of acute bronchitis, it does not differ very materially from the chronic. The remedy which will probably cure more cases than any other in the first stage is Aconite. You find here a restless condition, a scanty expectoration of watery mucus, possibly streaked with blood. You find a temperature in these cases from 102 to 103. In case of croup with that same kind of bronchitis we have a high temperature, so that after giving Aconite 3rd every hour or half hour, we find an amelioration of symptoms ordinarily in twenty-four hours, and continuing this for another twenty-four hours the case is almost convalescent. That is true of a large number of these cases. Then we generally change the remedy. I do not generally continue the use of Aconite beyond a period of forty-eight hours. Bryonia is a very good remedy. We find with these cases a cough which is rather dry; expectoration is not so free; it is aggravated by any disturbance of respiration, such as exercise of any kind, talking, laughing, singing, or inhaling cold air; getting up and moving about will excite the cough. Bryonia also has an effect upon the disposition of the patient; he hates to be disturbed, is irritable and wants to be let alone. With these two remedies you can cure the majority of cases of acute bronchitis. Phosphorus is a remedy of considerable importance but does not in my opinion cure half as many as Bryonia. We have a hoarseness here, and dryness extending down deep into the chest. Possibly there is some slight loss of voice, the cough is hoarse and the dry rale continues after the fever has subsided. There is dyspnoea, which is aggravated by inhaling dust or smoke. The patient is very particular in regard to that, is disturbed by a grate fire and will not allow any one to smoke in the room. In this case it is especially irritating to him, and in many cases we have to forbid it. There is no particular time of the day in which the cough is aggravated, but with such a condition as that Phosphorus will generally give relief. Sulphur is good remedy for

many cases of bronchitis, and I have performed some of my finest cures with Sulphur. Take a case which has difficulty in breathing; cannot lie down, has a dry cough, generally aggravated in the middle of the night, after twelve o'clock, and not the profuse expectoration that we have with many other remedies. The cough is inclined to be dry, with a great deal of dyspnoea; in such cases Sulphur will relieve. I do not use Sulphur lower than the 30th. This is given every hour or two until the patient is better; ordinarily I give it every hour, and I give the remedy in water in acute cases. Tartar emetic is a remedy which I would not forget in the treatment of bronchitis. It is an old remedy which has been used for centuries, has been abused and given in such doses as to produce nausea and aggravate the case, producing intense prostration. This drug was excluded from the army in the civil war on account of its abuse by many of the younger surgeons. Tartar emetic is the best remedy in a large number of diseases of the respiratory tract. The symptoms are so plain and there is such unanimous agreement in regard to these symptoms that you ought to be able to remember them as long as you live. With Tartar emetic we have an accumulation within the tubes which the patient is unable to expel. That is the keynote of this remedy. The patient coughs and there are moist rales in different parts all over the chest, but there is no expectoration. The cough is frequently dry because the patient cannot raise the sputum. Then we have the cyanotic condition which presents in capillary bronchitis. Blueness of the skin and coldness of the extremities are characteristic of this drug. Added to that if you have nausea produced by coughing it is all the more indicated. The patient coughs for perhaps a few minutes and is then compelled to vomit. It is not like the nausea with *Drosera*, which is produced by the shock of coughing. I use this remedy from the 3rd to the 30th. Ordinarily I place 10 grains of the 3rd trituration in 4 ounces of water and give one or two teaspoonfuls at a dose every half hour or hour. I know I have saved scores of lives with this remedy chiefly among children and old people in capillary bronchitis combined with lobular pneumonia.

WHOOPIING COUGH.

This is a disease of children generally, although no one is exempt from it. I remember a bad case of whooping cough in a person over sixty years of age, who had never before had whooping cough. It is an infectious disease and is communicated direct from one patient to another.

The period of incubation is from seven to fourteen days, a little longer in some cases. The symptoms which indicate whooping cough are a hacking cough without any relief. It is not the hoarse cough of croup, and has not the fever that comes from ordinary cold, but is a persistent, hacking cough, laryngeal in character, aggravated by lying down. After a little—from three days to a week—we notice that this cough becomes more paroxysmal in character, that the child coughs in a continuous paroxysm until it reaches its height and then there occurs a drawing in of the air through the contracted orifice of the larynx. This passing of air through the narrow orifice produces the whooping cough. It is very much like that which is produced in Millar's asthma. The child is then relieved for some time. He endeavors to suppress the cough. There will be a little hacking but he postpones the cough as long as he can, though finally it comes with a great deal of force. Sometimes the contents of the stomach are expelled. A child may have from four to fifty paroxysms in twenty-four hours. It is not exceedingly dangerous—except in its complications. Capillary bronchitis and lobar pneumonia are the most dangerous complications in connection with it. Sometimes in exceedingly young children convulsions and death result. We have impairment of digestion, so that the child is not properly nourished, and death comes from lack of proper nourishment. Vomiting is not always caused by irritation of the lining of the stomach—it sometimes results from the shock of coughing. Even if there is no disease of the stomach the child vomits, but as soon as the contents are expelled his appetite returns and he can eat a hearty meal. Eating, talking, laughing, or anything which disturbs the larynx is liable to produce paroxysms which last from two to three minutes before entirely disappearing. In about six weeks the cough has reached its height. In many cases it can be modified. If a child has whooping cough the first part of the winter—and you get it under control, then takes cold afterward, the whooping cough returns with renewed vigor. The trouble seems to remain for many months in the respiratory tract, and needs only an exciting cause,—exposure to cold—to develop the trouble again. So these cases frequently have to be under your supervision and you have to give proper instructions in regard to them for some time, after they are convalescent. Very many cases of chronic bronchitis have their origin in these attacks, and in those cases where we have broncho-pneumonia we not uncommonly get as a result, tuberculosis. Probably the most important thing that you can do is to limit the extension of inflammation beyond the original point. In whooping cough the trouble is usually confined to the larger tubes,

and the child is not very sick, between the paroxysms being able to play about; but if you notice that the child is sick, looks paler than usual and does not care to play you examine and may find he has a temperature of 102 or 103. Your next business is to place your ear over the chest laterally, and in nine cases out of ten you will find capillary bronchitis or broncho-pneumonia.

Treatment.—The remedy which is of most value in the first stage, especially where you have some elevation of temperature, is Belladonna. Study the pathogenesis of Belladonna and you will find the paroxysmal cough, flushed face, and then the nausea and vomiting not the chief symptoms by any means, but it does occur with that drug; this given in the first stage will frequently cut the disease short and modify it, but it does eradicate it. The remedy should be continued a considerable time after the symptoms are ameliorated. Drosera is a remedy which was advised by Hahnemann and which I have used probably more than Belladonna. Drosera comes after Belladonna; it is not indicated so much in the first stage. Here we have a cough which is paroxysmal and not accompanied with any great hoarseness, nor is there much expectoration; the cough is aggravated when the patient lies down. This remedy will control a large number of these cases. Where we have vomiting occurring after the paroxysmal cough, Sulphur 3rd to 30th. Tartar emetic in cases of capillary bronchitis; as I have indicated before, it is a great remedy to relieve vomiting, where the vomiting is not due entirely to the shock of coughing. Squills I have used in some instances. I remember one epidemic in which I gave it extensively. It has irritation of the Schneiderian membrane, such as we find in measles, a watering of the eyes and a cough which is paroxysmal and accompanied with pain—a pain not unlike that of Bryonia. Phosphorus— if there is great hoarseness, which is continuous. Spongia if we get hoarseness which is aggravated in the latter part of the day and evening, Hepar Sulphur in those cases in which you get hoarseness aggravated in the fore part of the day. You will have time to study these cases. Many of them are so mild that it is not exceedingly important that you find the remedy the first day, but when you find the remedy which seems to be indicated, continue it, even if you change the potency.

PLEURISY.

Pleuritis is an inflammation of the pleura, which may involve both sides of the chest, although usually but one. The lower portion

of the membrane is the part most liable to become involved in this disease; the left side much more frequently than the right. No age is exempt from it. It occurs frequently in connection with other complaints. It is generally believed to be of germ origin—the germs of tuberculosis or pneumonia being frequently the cause of this trouble. It was formerly supposed that many of the cases were idiopathic, but more careful investigation has shown that it is due probably to one of the causes referred to. It may be excited by exposure to cold or a damp atmosphere, from over-exertion or excessive expansion of the chest; or it may be due to some traumatic influence—injuries of various kinds. It occurs in connection with fractured ribs. It occurs frequently in connection with pneumonia. Pleuro-pneumonia, as you know, is often epidemic and occurs not only in human beings, but in the lower animals. It is one of the most fatal diseases among cattle, and extremely contagious in such instances. It is a disease which is liable to extend from one small center in all directions. Beginning at a small point on the pleura, it may extend to the major part of the membrane of that side. The changes which take place vary according to the character of the inflammation. We have these divided into several varieties—the serous form, sero-fibrinous and the fibrino-plastic. We have in the first instance a tendency to the excessive formation of serum, a large accumulation within the chest, frequently requiring operative procedures for its removal. Then we have the sero-fibrinous, which is really a combination of the principal varieties. In this we find a smaller amount of serum, a deposit of albumen and fibrin and the other ingredients of the blood in connection with the abnormal products; thus we get extensive thickening upon the surface by the deposit. This causes trouble in many of these cases. In the plastic variety we get very little of the serum but a considerable amount—more than in the sero-fibrinous—of this product of the blood which accumulates upon the surface, producing considerable thickening and frequently adhesions between the different parts.

Sometimes there remain adhesions of the layers of the pleura, holding the lung in close apposition to the chest; for the balance of a person's life this interferes materially with expansion of the lung and is liable to become the seat of other acute attacks, so that his health is somewhat impaired in consequence of this anatomical change. From an examination with the finger through an opening produced for the purpose of evacuating pus, I have been able to detect the amount of thickening, and it has been as much as a half inch in some cases. I have seen after death in quite a number of instances deposits of that kind. This renders the surface of the pleura irregular. We have

ridges and elevations of this deposit. Fortunately this is not common, but we get accumulation of pus in consequence of the entrance of germs into this fluid, that is, the serous fluid may become transformed into a purulent one. I have known fibrino-plastic cases where there was very little serum. We may get from the first an accumulation of serum sufficient to interfere with the performance of the function of the lung. These cases are generally indicated by the greater severity of the symptoms.

One attack of pleuritis predisposes to another. This may be due, as I have said, to the fact that after an attack there remains a change in the surface of the membrane which renders it more liable to subsequent inflammation. The symptoms of pleuritis are well marked and not easily overlooked in case the disease is acute. Some of the sub-acute cases are so mild and so gradual in their progress that it is somewhat difficult to diagnose them, our attention not being at first called to this disease. The first symptoms of pleuritis not accompanied with other inflammations or not occurring as a secondary condition are slight chilliness,—not the chill that we get with pneumonia, but simply rigors,—and pain in the side, which is the most characteristic symptom. The pain of pleuritis is sharp, lancinating, aggravated by the least motion, so that the patient holds the chest or lies upon that side to prevent motion. There is usually some cough, although we do not have the persistent cough that is characteristic of bronchitis or pneumonia, but there is usually a hacking cough which the patient endeavors to suppress on account of the pain. This cough continues with a varying degree of intensity. If there is accumulation of fluid we have a hacking cough which is almost constant. Something of this kind is to be suspected after an attack of acute pain; the pain having subsided but the cough continuing. It is remarkable what relief is obtained just the moment this fluid is evacuated. In some cases where the inflammation is quite limited and the patient is able to carry on the functions of respiration without disturbing this part, there may not be a severe cough. Extreme tenderness of the surface is not noticed in all cases. The fever is liable to subside or we have considerable prostration. If the case becomes purulent we are liable to have chilliness with fever, which is remitting or intermitting, followed by profuse perspiration. That is characteristic of suppuration. The temperature frequently rises higher at some part of the day than it did in the first instance. The fever coming on with a moderate degree of intensity—say 102—suddenly changes to a remitting form, which goes up to 104 or 105. We then suspect that suppuration is taking place. By inspection of the chest we learn that there is loss of



motion upon that side; we notice an expression of pain on the part of the patient every time he attempts to move. Then by palpation we can feel the crackling sound. We can map it out by passing the tips of the fingers over that side. As the patient breathes we notice this rubbing. However, this is not so well marked that it can be depended upon in all instances. Then, too, there are many cases in which very early an accumulation of fluid separates the layers of the pleura. Auscultation is the best method we have for diagnosis. We can detect the friction sound. This friction is produced by the rubbing of one layer of the pleura upon the other. It is a little like the creaking of new leather. It is not the crackling sound which I have described but more of a rubbing character. The extent of the trouble can frequently be detected by following this sound. We search for this in the lower half of the chest, generally over the anterior part. Percussion does not indicate anything until there is some accumulation within the cavity. We notice upon inspection the loss of motion and perhaps an increase of size on that side of the chest. We also notice that the intercostal spaces are somewhat fuller than upon the other side. It is hardly a bulging. If the patient is very much emaciated and the spaces between the ribs are considerable, we have something like bulging; ordinarily we should simply notice that the chest is somewhat fuller and should not notice the depression between the ribs that is found upon the other side. We then percuss and find dullness. We change the patient's position and have him lie upon the opposite side. A point in the centre of the chest which was dull when he was sitting becomes resonant when he lies down. That is a positive sign of fluid. We percuss this dullness so as to determine the extent of the deposit. Upon placing the ear over the chest we can hardly distinguish the sounds. We do not hear the bronchial breathing that is characteristic of a hepatized lung, the blowing sound of hepatization,—there is also a changed sound of the voice in hepatization. The vesicular sound can be heard through a considerable layer of fluid, but generally the sounds are, in pleurisy, considerably diminished. In case the chest is filled to its utmost capacity with fluid, the lung compressed so that it cannot expand at all and crowded into little space in the superior part of the chest and close to the spine, we have absolute dullness. These are not common cases. What is heard with the phonendoscope is rather of a normal character, the ordinary vesicular murmur, very much diminished and sounding as if it were at a distance. Bronchial breathing is absent. Placing the hands upon the chest and asking the patient to speak, notice the tremor which the voice produces. It is absent in a case of hydrothorax or any accumulation of fluid. That

is probably the most positive sign, and we can depend upon it. There will, however, be some slight tremor, if the amount of fluid is small. The absence of vocal fremitus is one of the most characteristic signs of fluid in the chest. This fluid may gradually disappear. A small amount of fluid is soon taken up if the patient was strong and vigorous when in health. A large amount of fluid is not readily absorbed and in some instances this may be on account of a low state of vitality. There is an easy way of detecting the presence of fluid and one which is adopted pretty generally—the use of the aspirating needle. If the instrument is properly cared for there is no danger connected with it. It can be introduced where the dullness is greatest and we note whether any fluid escapes or not. It is not always an easy matter to obtain it, but ordinarily if the chest is punctured where there is the greatest amount of dullness it can be found. This is more frequently the case with pus than with serum. Serum generally occupies the lateral half of the chest. In operating upon a case of pyothorax, a large amount of pus may not be found. It may require more than one operation to relieve the patient. The fluid usually occupies the lower portion of the chest. Sometimes we find it beneath the scapula. I knew of one instance in which the pus discharged between the second and third ribs anteriorly. In some cases of suppuration—probably not the average number of cases—but one-half of the cases of pyothorax unless the patient is relieved by external operation, the pus discharges into the lung and then a serious combination results. We have in these cases a paroxysmal cough, a cough which would seem to tear the patient to pieces. I had a case last winter, a patient who was taken sick in a hospital. He had fever and there was a tubercular history in the family. The case was probably not watched very much at first. It went on and the family and friends reported to me that it was supposed to be a case of tuberculosis. The patient was expectorating large quantities now and had high fever and very severe cough. He was removed to the Huron Street Hospital and I found the expectoration was clear pus. There were no tubercular bacilli and the indications were that it had been a case of pyothorax, which had discharged into the lung. Of course the lung had become involved to a considerable extent. Gradually the cough subsided and in the course of three months the patient recovered. Another case came to me from the west, coming home to die. He was expectorating pus,—and the pus from pyothorax is exceedingly offensive,—and had a terrible racking cough. It was a case almost identical with the case I have described. Gradually the fellow recovered. In any case in which there is an accumulation of pus, there is no need of waiting.



The chest should be opened, the drainage tube placed there and the pus allowed to escape continuously. It is a comparatively simple operation. One need not hesitate to do it. I have not been in the habit of washing out the cavity after an operation as many do. These cases generally improve so promptly that I do not consider it necessary, certainly not in a case of pyo-pneumo-thorax, because there is a communication between the bronchial tubes and the pleural cavity, and I would not think of injecting fluid into it. Serum is removed by the aspirator. There is a question as to how much of this fluid should be removed at one time. In case there is a very large accumulation of fluid, it is not proper to remove the whole of it at a time. In one instance I removed 112 oz. the first time and a week later 96 oz. The patient was suffering also from mitral disease, and became so faint and so depressed that I thought she was going to die, so I stopped and waited until a more opportune time before removing the balance. Ordinarily one may get all that is within reach. In many cases aspiration has to be repeated because there occurs a constant accumulation. I would not hesitate to repeat it in two or three weeks.

Some of these cases become sub-acute or chronic. The statement should be made to the patient that there is a possibility of this accumulating again, and if it does it will have to be removed. Cases which require an operation are not very common. Probably 19 out of 20 recover without anything of the sort. The principal treatment in a case of pleuritis is to keep the patient as quiet as possible. In some instances I have used means to hold the chest wall, but ordinarily I at first use poultices of some kind which would prevent the application of any bandage. I prefer the ordinary slippery elm poultice, changed frequently. In lieu of that I use ordinary flaxseed meal. These continue about 48 hours. If the pain is intense and I think best to restrict motion I take an ordinary rubber plaster two inches wide and strap the patient from the spine to the sternum on that side. Then the chest is to be kept well protected from the atmosphere and thoroughly warm, and that is all the local treatment I use. Of course there are other means which are used considerably. I am very strongly opposed to Tartar emetic upon the chest or anything which produces pustules.

Remedies:—In the first instance the remedy most indicated where we have primary fever is Aconite 3rd every half hour for 48 hours, and this will cut short many of these cases, that is, they have none of these secondary symptoms. Bryonia is a remedy which is most frequently indicated after Aconite. It has the characteristic symptoms of pleuritis. The Aconite stage has passed and there is

perhaps a little tendency to perspiration. The fever is not as acute as in the first instance and in the majority of cases these would be the two remedies which are to be used. Complications occur in some cases. There may be a laryngeal cough, for which Drosera would be used, or there may be dyspnoea, which cannot be explained on account of the pleuritic trouble, and then Sulphur is perhaps given. Indications for this I have given you. Tartar emetic may be given for the bronchitis which occurs in this connection, and, in case of pleuro-pneumonia, all the remedies which are indicated in that inflammation. Uncomplicated cases of pleuritis with but little inflammation of the lung are unusual. Pleuro-pneumonia is more common. In case of infusion I question whether remedies have much effect. In some instances I have thought I noticed some benefit from the use of Apium, where the secretion of urine was scanty and where there was some irritation of the urinary tract and possibly some of the skin symptoms of this remedy. I have used Apocynum in some of these cases where I had perhaps in addition to the accumulation of fluid in the chest some tendency to dropsy, and where I had scanty secretion of urine and an irritable condition of the heart. Apocynum has as much effect upon the heart as Digitalis in many of those cases in which we get frequency of heart's action accompanied with considerable irregularity, together with this scanty secretion of urine. It has given me more satisfaction than Digitalis. Mercury is a remedy of considerable importance in limiting the suppuration. We find in such cases profuse perspiration without apparent relief. It is not normal perspiration. The patient has a temperature of 102 or 103 and is covered with perspiration. Such a case calls for Mercury. I have used this for thirty years with a great deal of benefit in cases of this kind. Hepar Sulphur is used in case there is a considerable amount of expectoration. In operating for pyothorax it should be given. Such cases are generally much reduced in flesh and strength and require to be well-nourished. Of course the fever goes down as soon as the chest is opened and the temperature drops from 103 to 97, when I usually give stimulants in some form, whiskey quite frequently. I sustain the patient as well as I can, because he is liable to succumb to such extreme prostration.

PNEUMONIA.

To name all the symptoms and indications given by the different authors upon this subject would require more time than I have allotted to it. It is not necessary to learn all the ingredients which

the air cells contain or all the varieties of this disease. We know that when the lung is inflamed the tissues of the air cells become inflamed and thickened and finally we get a secretion which fills the cell. Perhaps during the stage of congestion the function of the cell is impaired; it cannot perform its function as before so that the change which goes on ordinarily in the blood through the medium of this cell, the supply of oxygen, is stopped and we get after that a filling up of the cell. This remains for some considerable time and gradually is carried away either by the process of resolution or by liquefaction and expectoration.

We have a number of varieties of pneumonia. The one which is the result of germ origin—croupous pneumonia,—prevailing in the winter time chiefly, aided by the changes of weather, often epidemic, is the most common. This inflammation begins primarily in the lung, and then we have bronchitis, which is generally secondary to it. It is true that some cases of chronic bronchitis may contract croupous pneumonia, but in that case inflammation of the lung was primary and the bronchitis is simply an advanced condition of the croupous pneumonia. This is a disease which when it prevails is likely to affect any one. No age is exempt from it, although middle aged people are more liable to take it. It would be extremely rare for a young child to be affected in this way. It has been noted by those who have made tests that a large percentage in a community where croupous pneumonia prevails have the germ somewhere about the mouth or throat; some claim 20 per cent. Such persons can go on unaffected, provided they do not become exposed to extreme cold or become debilitated. That is the way with all germs, but especially with this germ which produces croupous pneumonia. Let such a person be exposed to extreme cold, riding perhaps a day with a temperature 20 or 30 degrees below zero; he goes home but cannot get warm. Ordinarily he would find that the skin in half an hour would be all aglow and he would be as well as usual. There is this germ in the system which is allowed take hold in case there is any lowering of the vitality. There is a long continued and severe chill. Immediately he notices considerable dyspnoea and oppression about the chest which he cannot explain, and then comes a cough, hacking at first and later more severe. After a time there comes fever which goes to the other extreme and the pendulum swings the other way. Nature cannot accomplish what she wishes, and the fever frequently goes up to 103° or 104°. This is one of the diseases in which we find a very high temperature. I saw a case with a temperature of 105°. The fever of croupous pneumonia is a continued fever as a rule. The temperature remains

ordinarily in the vicinity of 103° or upwards for a number of days. If this disease involves the pleura, as it frequently does, we have acute, lancinating pains upon the side of the chest, aggravated by the cough, as pleuritis always is. The patient protects the chest as well as he can. He lies upon the affected side for the purpose of restricting the motion of the chest and preventing pain, because if he lies upon the opposite side the lung which is involved is more active and consequently there is more coughing. The right lung is most frequently involved. Statistics in regard to this show that out of some six or seven thousand cases 54 per cent. occupied the right side and some 38 per cent. the left. According to my experience I should place the proportion at something more than that—probably 70 per cent. of the right and 30 per cent. of the left. Nearly 9 per cent. have both lungs involved. I was a little skeptical about what I read concerning young Roosevelt having inflammation of both lungs. The child doubtless had broncho-pneumonia. I would hardly expect so young a child to have croupous pneumonia, and no child could have recovered so promptly with double pneumonia. It is exceedingly rare to find double croupous pneumonia. I have seen a few instances, but those generally died before we got very extensive hepatization. One patient who died in about three days, had the crepitant rale over more than half of both lungs and as soon as hepatization began there was no space left to carry on the ordinary process of respiration. Ordinarily the right lung is involved and this is confined more to one lobe, generally the lower portion. It is not common to find more than half of the lung involved. I have seen two-thirds in some cases, but the whole lung is never involved. I do not now recall a single instance where I have noticed hepatization over nearly the whole lung. Occasionally we find a pleuritis sufficient to develop considerable secretion of fluid so that we have a combination of hydrothorax and hepatization. The air cells are agglutinated by a secretion which is taken from the blood and the air forces its way for a little time by separation of the walls of the cell. Finally the secretion becomes increased, the cell becomes filled up and then we find dullness over that part of the lung; the air cannot enter this part and this remains for some little time. As the lung begins to clear up the last part to become hepatized is the first to clear up. It becomes solid from below upwards and clears from above downward. These cells become opened up partially and the air rushes in, producing a return of the peculiar sound which we term the crepitant rale, and this crepitation gradually extends lower and lower until finally the lung is cleared, and as the cells become normal,

100%

the crepitation ceases and they have the vesicular murmur of health. Occasionally this trouble takes a new start. The patient may take a second cold and renewal of the trouble results, that is, the entire section of the lung becomes involved and we find that going through the same process. We depend chiefly upon the physical signs in this disease and they are so manifest that it is not necessary to call in anyone else to aid us in our diagnosis. It is true the microscope will discover the germ of this disease, possibly and it may be of some importance to know if it is of the epidemic variety.

What leads you to suspect pneumonia? First, the intense fever, and the increased frequency of respiration. Respirations are increased from 18 to 40 or 50 per minute. You notice that one side of the chest is not as active as the other. This would hardly be noted anteriorly. While the patient is in bed you might not notice it, but if he sits up and you place the hands upon the chest you notice that one side moves while the other is quiet. During the first stage some air enters the lung, but later none at all.

Now let us go through with the methods of examination. You simply learn by inspection that there is less motion. You notice that respiration is increased, and also that the sputum is rust colored, which is pathognomonic. You would not probably attempt mensuration. You could prove by measuring that expansion was lessened. By palpation you would learn that there was loss of motion. You would feel the increased vocal fremitus. By the patient conversing while you hold the hands upon the chest, you notice this tremor conveyed to the chest wall. It is probably most important to distinguish between hydrothorax and hepatization. In hydrothorax if the amount of fluid is considerable there is no tremor of this kind, while in hepatization you have increased vocal fremitus. Then by percussion of course you get dullness. You percuss from above downward and map it out. In the second stage of hepatization it is as dull as if you were percussing over the liver. Gradually as the patient improves you get a little more resonance. This resonance comes from above downward as the case clears up. It is a good plan to note this in the presence of the family or nurse and where there has been a dispute in regard to the diagnosis I have the patient sit up if possible and percuss in the presence of the family and have them observe the difference between one side and the other. I remember one case where a man had been treated for some considerable time for malarial fever. When I was called to see him I noted this condition. There was some difference of opinion in regard to the diagnosis. I had this patient sit up and I percussed in the presence of those in the room, showing that

the right side of the chest—nearly two-thirds—was solid. The crepitant rale is a peculiar sound like that produced by dropping salt into the fire. It is the finest rale we hear. We note this over that part of the lung which is involved, prior to the complete filling up of the cell, and then again as the patient is improving and the cell clears up. I do not think I can impress too strongly upon your minds the necessity of lateral and posterior examination of the chest. You will overlook some cases of croupous pneumonia if you do not examine in this way. It is utterly useless to examine the superior portion of the chest anteriorly, because you do not find hepatization there. You find increased frequency of respiration. There are exceptions to this. I recall one case in particular, that of a teacher of physical culture, a lady who had been in the habit of practicing expansion of the chest. She had, for the size of the chest, an extremely large expansion. She was taken with pain in the left chest. I did not examine it very carefully at my first visit, and possibly not at my second. She was coughing some, but not very much. There was no rusty sputum and the pulse was not extremely rapid. She had some fever but the respirations were not very much above normal and the pulse a little below. Possibly at the third visit I made an examination of the chest and found crepitation over the left side, lower half,—she had a perfect case of croupous pneumonia. I do not think that the respirations were increased beyond 25. I accounted for it by the fact that she had expanded her lung so much that there was sufficient amount of lung tissue to keep the blood in normal condition while this trouble was going on. Respiration varies very much during the day in the same case and it does not take very much to increase its frequency ten to fifteen per minute. In regard to expectoration there is a great difference. It is the general impression that this all has to be coughed up. This is not true. The major part is carried away by the usual processes. We have a fatty degeneration and consequent liquefaction, followed by expectoration or absorption of the product. I have seen cases with scarcely any expectoration. The sputum, when we get expectoration, is generally scanty. This consists of the ingredients of the cell freely mixed with blood, so that it has received the name rust colored. It is entirely different from that from the bronchial tubes, where the mucus is blood streaked. As the patient improves we have a muco-purulent secretion and this gradually lessens until it ceases altogether.

The fever of this disease corresponds usually to the amount of inflammation and gradually subsides as resolution takes place. Occasionally we have a typhoid condition. We have delirium, sordes upon the teeth and intense prostration—the ordinary symptoms which



we term typhoid. Many of these cases die. This is termed typho-pneumonia and is really a septic variety of the disease. If we have an epidemic of croupous pneumonia, which is extremely contagious, a great many die in this way. Perspiration is quite common, but it does not afford the relief we expect. I would rather a patient would not perspire so freely. I like to see a normal perspiration bringing down the temperature, for in a case in which the perspiration is profuse and inclined to be cold, accompanied with extreme prostration, it is not a good symptom. Delirium in such cases is common. Occasionally we have active delirium in the first stage. These are bad cases always and I dislike very much to see anything like delirium in this disease.

It is lobular pneumonia which we have to treat most frequently. It is liable to occur at any time and any season of the year and more liable to occur in the cases and at the ages in which croupous pneumonia is not common. Lobular pneumonia is a patchy pneumonia—a pneumonia which involves sections of the lung here and there, each section going through the same course that a considerable portion of the lung does in croupous pneumonia. We have accumulation in the air cell or inflammation of the mucous lining from extension—usually from the tube. These cases are usually secondary to bronchitis. If the termination is favorable, these cells gradually clear up. Sometimes these patches remain hepatized, that is, they do not clear up as readily as the lung does and they remain a menace to the life of the individual, being liable to become the seat of tubercular deposit. This is not as serious an affair as croupous pneumonia, but it is frequently present in connection with capillary bronchitis in the extremely young or old and often proves fatal.

I have referred to the method of distinguishing between bronchitis and broncho-pneumonia. You have the presence of fine crepitation in addition to the coarser rales, and the absence of vesicular murmur. In bronchitis you find fine rales, especially in capillary bronchitis, but not as fine as in pneumonia. In an ordinary case of bronchitis carry your ear over the chest and you will hear coarse and fine rales. If the lung is inflamed to any extent the vesicular murmur is absent; in place of it is the crepitant rale. In every case of bronchitis you must examine for this frequently, because its presence adds to the danger of the case and makes it much more serious. The course of the inflammation does not differ very much in either form.

Treatment:—The remedy which is generally indicated in the first stage and which will modify the disease very much is Aconite. The symptoms correspond very closely to the symptoms of this remedy.

Restlessness, fear of death which is so characteristic of it, the constant hacking cough without much expectoration, and full pulse are all indicative of Aconite. It has to be continued until this restlessness subsides. Ordinarily within 48 hours you will have a modification of the fever. The temperature has fallen from 104.5° to 102°, and the cough is not as constant; the patient now has a considerable interval between paroxysms of coughing. The fear of death has passed. Bryonia is the remedy following Aconite. It is particularly indicated where we have a pleuritic condition, and we usually have. It is almost impossible to have the lung involved without its covering being affected. In some cases we have sharp pain aggravated by coughing, even if the fever continues. Ordinarily the patient lies quietly; hates to be disturbed and whenever he coughs he moans on account of the pain which it produces; he shrinks from it as much as he can and lies upon that side to prevent motion. Phosphorus is a remedy of considerable importance. You have a complication of bronchitis. It is especially indicated in cases of broncho-pneumonia in which we have more dyspnoea than it seems would correspond with the moderate inflammation, in other words, dyspnoea is out of proportion to the amount of inflammation and the patient complains of any dust or smoke which may be in the room. The cough is a deep bass. In such a case Phosphorus would be the remedy. It is more indicated in spare, slender persons. I have not tested that symptom to my satisfaction, but in regard to the first indications I have tested it many times. Tartar emetic is a remedy of considerable importance. I have given you most of the symptoms under bronchitis. Here you have a moist rale which is heard quite distinctly. You can easily detect that rale by placing the hands upon the chest. I always feel as if I would like to cough for such people. They cough but fail to get anything up. This is generally in debilitated persons and in persons who have been sick for a long time. They cannot get enough air behind this mucus to force it out. The hands and feet are likely to be cold. Possibly there may be some irritation of the stomach. The old method of using this was to cover the chest and produce a pustular eruption. In former years I have found cases that have been under treatment for some days and the whole chest would be covered with Tartar emetic pustules. Sulphur follows well after Bryonia. It has great dyspnoea, a tendency to asthma, with aggravation in the middle of the night. The cough is dry, as a rule. Drosera, although chiefly indicated for laryngitis, is a remedy which may be of use in the late stages of pneumonia in which we have a bronchial cough, aggravated by a recumbent position; the patient does not lie down on that ac-



count. We find after the patient has been lying still for a considerable time, whenever he attempts to move he suffers from a severe paroxysm. This is not an uncommon symptom. The paroxysms of *Drosera* are something like the paroxysms of whooping cough. Of course in a case of that kind we must have some irritation of the larynx and trachea or we would not have such a cough.

In regard to local means,—I am not in favor of keeping the patient too warmly clothed. The temperature of the room should be about 70°. If there is extreme pain in the chest I use some form of poultice, preferably slippery elm bark, applied as warm as the patient can stand it. A poultice is of no value unless it is properly changed. The diet should be guarded with considerable care. I do not allow these patients to eat solid food. No case of this kind can take solid food without producing trouble. Milk can be given if there is no serious trouble with the stomach, malted milk or some farinaceous gruel given frequently, a small quantity at a time. Bathing must be indulged in very carefully, if at all. These patients take cold very easily and if they are exposed to cold you have extension of the trouble. While the temperature remains high, I sponge the patient with tepid water. No large portion of the surface should be exposed, and if the temperature goes down this should be avoided. I am opposed to the use of alcohol as extensively as some use it. I think it has too much of a stimulating effect.

TUBERCULOSIS.

Tuberculosis is an infectious disease produced by the bacillus of Koch, who discovered the germ in 1881. Prior to that, there was no definite information in regard to the cause of this disease. Williman in 1865 had demonstrated by inoculation that it could be communicated. It is a disease which prevails throughout the world generally, although more in the temperate zones than in the extremely hot climates. It is prevalent in the United States and is the chief cause of death. No physician can practice without being called upon to treat many cases of this disease. It affects various parts of the body, but more particularly the respiratory tract—that is the general opinion; some claim, however, that the lymphatics generally are involved more than the lung. Prof. Grancher, of Paris, performed many experiments, and he arrived at the conclusion that nearly sixty per cent. of the people of France had suffered from tuberculosis in some form, and that instead of being the most incurable of diseases it is the most curable. Nature cures the majority of cases unaided. He includes in his

summary all cases of indurated glands, claiming that they were tubercular.

No age is exempt from this disease, although it is more liable to attack persons from 15 to 30. After that the tendency to its contraction is considerably lessened. It seems to be more prevalent where we have a damp, cold atmosphere with frequent changes. An exceedingly dry atmosphere, if cold, tends to retard and prevent the trouble. An extremely hot atmosphere, also, if the air is dry, aids in the cure of this disease. The frequent changes of temperature such as we find in this section are prominent exciting causes. If one could keep warm at all times, he would not have anything of this kind and there would be none of the local conditions which aid in the development of this disease. We have a great many predisposing influences, chief among which is heredity. The belief in regard to this is continually changing, these cases which were formerly supposed to be produced by heredity now being found to be directly the result of contagion. Even at the present time isolation is not practiced to any great extent, and where children mingle freely as they do with the rest of the family the disease is readily communicated from one to the other. It is so with husbands taking the disease from their wives, and vice versa, and children from parents, etc. There is no disease in which there has been so much enlightenment in regard to its character, origin and method of prevention as this. This has been especially true for the last five years, and at the present time there are boards organized for the purpose of caring for these cases and preventing the spread of the disease. I imagine that within the next five years there will be separate hospitals for the care of tubercular cases and that isolation will be obligatory. It has been demonstrated that the contagion lies in the sputum chiefly, and that this sputum is more dangerous when it becomes dry and is distributed throughout the atmosphere. There have been made in various cities examinations of the dust of the street, that found in hotels and street cars and all frequently contain the germ of tuberculosis, which thus is readily inhaled by all those who are within reach of it. The probabilities are that every one has inhaled the germ of this disease, and if it were true that a very large proportion of those who were exposed in that way developed the disease, it would be much worse than it is now. You know that a person in health can throw off the causative germ of almost any disease; it often remains latent and is finally expelled without any serious harm.

Again we have mild cases of tuberculosis which were formerly frequently overlooked. It was not supposed that the disease was con-





sumption unless the patient was virtually in the last stages. When I first began the study of medicine, if a physician would diagnose a case as tuberculosis and the patient recovered, he was supposed to have made a mistake, and if he diagnosed the case as non-tubercular, no matter what disease the patient died of—pneumonia or any other disease than tuberculosis, it was supposed by the laity that the case was consumption. This is changed to a large extent at the present time, although it is exceedingly difficult to make the laity believe that tuberculosis is curable. If you suggest that a patient has tubercular disease they believe it to be incurable, although gradually they are coming around to believe that there is a possibility of cure.

When I first studied the disease, it was supposed that we had two varieties—the gray and the yellow. Now we know that these are only different types of the same, that the yellow tubercle is the gray tubercle which has undergone caseous degeneration. The most minute form of tubercle is grayish in color and somewhat spherical in form. We have changes very soon in this little spherical nodule, taking place from the centre. There is a breaking down of the centre, this gradually extending to the circumference. At any time during the process of this caseous degeneration, we may get the formation of pus, a secondary infection in all probability, although some claim that the tubercle contains in itself the means of developing pus; the general belief is that when pus is produced in the tubercle it is due to the introduction of some other germ. This then produces a breaking down of the cell and many of them join together and form a larger cavity. Nature, however, tends to prevent this, so that we get upon the surface surrounding these little nodules a sclerosis, somewhat resembling cicatricial tissue, which builds up a wall around this little cavity and prevents the entrance of its contents into other portions of the lung, rendering the balance of the structure free from this contamination. This gradually undergoes a change and we frequently have nothing but a little collection of fibrous tissue which indicates the former presence of this small tubercular mass. You will find generally in chronic cases of tuberculosis, a large number of collections of fibrous tissue which were formerly the walls surrounding the mass of tubercles. They break down, this fibrous tissue contracts and that part virtually is healed.

We notice the symptoms first in the apex of the left lung. I notice one author claims that it is the right earlier than the left, but guided by my experience I must still hold to my opinion in regard to that. I well remember the case of Prof. A. Y. Moore, who was our microscopist over 15 years ago and who died from carcinoma of the duodenum. When he was about 25 years old, he was taken with tuber-

culosis and our belief was that he contracted the disease in the laboratory. I treated him at the time. He had all the symptoms of the disease, with the evidence of a cavity of the left lung and he had the tubercular bacilli. He gradually improved and remained here. He took good care of himself and was well fed. He had no special medical treatment, that is, no particular remedy, but he recovered. After his death we examined that lung and found there was a fibrous mass and contracted tissue in the apex. Whether nature is able to prevent this encroachment depends largely upon the condition of the patient.

There is no disease in which surroundings have so much to do as in this disease. It has been found that dry, pure air such as we get in mountainous regions, is probably the best and sanatoria are being built in the forests, for instance in the Black Forests of Germany and in the Adirondacks, for the purpose of treating patients. In acute tuberculosis the tubercles are found to occupy a large extent of structure at the same time, the whole of the lung or the surface of the pleura upon one side and possibly both, in some cases extending even to the lining of the intestine. I remember one case of acute tuberculosis in which we found that there was not a single square inch of the pleura on either side nor even the lining of the intestine that was not covered with these little nodules. There is no cure for a case of this kind. It is a rapid case of acute tuberculosis, galloping consumption as it was formerly called—a disease which takes patients off in two or three months. The disease usually develops slowly—the patient having had one attack is predisposed to another. It is liable to extend from the original point as the bronchial irritation remains. Heredity no doubt acts in many ways for we find proof of that in families who are scattered here and there, families where the children have not lived together for years, where there was no possibility of contagion, yet they die one after another from this disease. Other predisposing causes are mode of life, improper or insufficient food, care or anxiety, and anything which exhausts the vitality; a sedentary habit, with lack of proper expansion of the lung—some portion of the lung remaining inert to a large extent; the inhalation of foreign particles, which remain in the lung perhaps the balance of one's life. This is true particularly of metallic and gritty substances, such as particles of stone. We find those who work in shops inhaling fine dust or metals are particularly susceptible to this disease. Formerly I think eight years was the normal life of a person who was engaged in the manufacture of grindstones. Now the channeling, which is the most dangerous part of this work, is performed by machinery. Those who work in shops inhaling dust of

clothing, particularly woollen cloth, are predisposed to this as are those who are engaged in pursuits which compel them to be exposed to the sudden changes of temperature, possibly working when the system is unable to throw off disease—when the reactive power is low. Then, too, the condition of the mind has something to do with it, and I think that is one reason why the different members of a family develop it. They imagine that as soon as they begin to cough they are going the way the rest did. It is indeed a gloomy outlook for one where perhaps three or four members of the family have died at a certain age and he finds himself developing the same symptoms he has seen in one after another of his brothers and sisters. He is in almost a suicidal condition. It is exceedingly difficult to treat these cases and develop any hope within them. When patients give up hope—no matter what the disease, it is hard to do anything for them.

There are a few cases in which the disease develops in the larynx. I have a case under treatment now, in which the disease developed in this organ and has extended to the lung. A person could not have tubercular laryngitis long without having some trouble with the lung. Take the case as it usually comes to us—what we term primary pulmonary tuberculosis—what is the appearance of the patient? In the first place he is emaciated. He is pale and anæmic with perhaps a hectic flush upon first one cheek, then the other, particularly in persons of sedentary temperament; it is not constant. It is not there in the fore part of the day. We notice that the breathing is rapid and easily disturbed. We find the pulse quick—the patient perhaps going about with a pulse of 100, and then if we take the temperature at different times of the day we find it elevated. Frequently the fever is intermitting—absent in the morning and present in the afternoon; or remitting—diminished in the fore part of the day and increased in the latter part. There is profuse perspiration at night as a rule, the fever going down during that time. We note the difference between this and an intermitting malarial fever which we would consider in connection with a case of that kind. The pulse of malarial fever is slow but the pulse of tuberculosis is rapid and much more feeble. For instance, with a temperature of 102 in malarial fever we have a pulse of 70; in tuberculosis a temperature of 102 would carry a pulse considerable above 100 and easily disturbed. The patient indicates his weakness while going about. He walks slowly and has not proper control of his movements. The appetite is impaired. He cares little for food and there is considerable thirst especially in the latter part of the day and during the night. The bowels are constipated as a rule, although some tuberculosis a temperature of 102 would carry a pulse considerably

tuberculosis in the last stages have intestinal tuberculosis as well. This comes probably from the sputum being swallowed and the germ conveyed directly to the surface of the intestine. In the early stages it is not common. Intestinal tuberculosis independent of pulmonary tuberculosis, especially in adults, is exceedingly rare. If a patient has chronic diarrhoea the family think it is tubercular. As a rule that is not the case. I have been called to see quite a number of cases in which that was the diagnosis, and the trouble was supposed to be almost incurable, but almost invariably I would find that was not the case. We had no fever, no rapid pulse, and the microscopic examination would not develop any indications of tubercular bacilli. Hemorrhage is not an uncommon symptom. We find a history of hemorrhage in some cases going back for years. This is not necessarily a fatal symptom, and many cases having had serious hemorrhage recover. I remember one gentleman who was in bed for six months, having a little hemorrhage every day and occasionally a severe one. He had an extensive cavity in a portion of the left lung from which the hemorrhage came. I treated him at that time and he gradually improved and went to California, where he lived for many years. Another patient of mine traveled in California and visited him. He had a little ranch out in the foot hills. One day he wanted to bore a hole in the end of his wagon and for that purpose he rested the brace against his chest; he was taken immediately with bleeding and had quite a severe hemorrhage. This was the spot where he had had trouble before and the hemorrhage continued for some days but finally ceased. As the cases progress, probably 50 per cent. of them get diarrhoea and then we have more trouble. The patient cannot digest his food, and what is eaten passes through the alimentary canal without being digested. These cases run down rapidly. Prostration is excessive and they die from asthenia, some of them from cardiac thrombosis. They sit up for a few minutes, become faint, and the heart stops.

You can learn something by a physical examination of the chest. Inspection has taught you that the movements of the chest are somewhat rapid, that they are perhaps slightly constricted on the left side. Then you attempt palpation. You find tenderness beneath the clavicle. You find a difference as you place the tips of the fingers over the anterior portion of the chest, and the patient tells you that there is pain at this point. Laterally you find no particular difference. Then you apply the ear, or your instrument to the chest for the purpose of discovering the change of sound. There was a time years ago when I used to endeavor to teach that there were certain rules in tubercular

disease. I think that is carrying the matter too far. The clicking sound which is referred to frequently is a sound produced by various conditions. It may be an adhesion of the walls of the cavity which are opened up by the entrance of air, or you may get something similar in the bronchial tubes which have become adherent or where there is a passage of air through a glutinous collection within the tube. When you get a collection of abnormal sounds at the apex of the lung, you are to suspect tubercular trouble. Of course if you have a cavity there is a peculiar cavernous rale. There may be fluid in the lower portion of this cavity. A cavity is indicated plainly by percussion,—extreme resonance and the hollow sound which you can hear distinctly. By that time you have had the sputum examined a number of times and you know what the trouble is. In regard to percussion, unless you have a cavity in which you get extreme resonance over a portion of the lung there is but little to be learned. The ear is the chief guide. There is no other disease which develops so many abnormal sounds in the apex of the lung as does tuberculosis. The disease extends downward from this point. A person cannot lose the use of one lung by tuberculosis without the other becoming involved. The claim that people live with one lung is not based upon a case of this disease. A patient who has had hydrothorax until the lung was compressed into the smallest space and never after expanded can live with one lung, but I have never seen a case in which one lung was destroyed by tubercular disease without the other being involved. However, a person can have a considerable cavity in the lung, which gradually contracts and heals, and recover reasonable health. These cases are liable to attacks of bronchitis or pneumonia; a great deal depends upon the prompt treatment of any inflammatory affection which develops. It was formerly supposed that tuberculosis is a non-inflammatory disease. This is not so. Inflammation is a prominent factor in the extension of this disease, and where you have a section which is the seat of tubercular deposit you find congestion and hepatization which never clears up. Then there is extension, with destruction, which is the same as we had in the first instance. So from frequent attacks of pneumonia, the disease gradually extends to other parts and that is why in warm climates in which the patients do not take cold they recover more promptly than in such a climate as we have. It is remarkable how many of these cases improve. I never give up a case of tuberculosis until the last. I have seen so many cases that were apparently hopeless which finally recovered. I remember a colleague of mine who lived for ten years after the disease had developed and during that time he practiced considerably;

he was at his office almost until the day of his death. He would seem to be quite well for a time, and then from one cause or another developing an attack of inflammation, would be confined to his bed for some weeks. That was the history for ten years, a history of frequent attacks of bronchitis, broncho-pneumonia, pleuritis, and finally sudden death by the bursting of an abscess. Five years at least before he died there would be times when no one thought he could recover. That is the case with quite a number and I condemn the practice of abandoning a case of supposed incurable disease. I do not think it is the physician's duty to the patient, neither is it his duty to the profession. These cases should be cared for and watched over just as long as the breath of life remains in them.

The prominent symptom of this disease, and one of the most constant, is cough. Cough is due in the majority of cases to a bronchial irritation, or bronchitis. This disease rarely exists without bronchitis. We have frequently a laryngeal irritation that varies with regard to its character and location. We find laryngeal symptoms accompanied with almost complete loss of voice, the cough being paroxysmal and croupy in character, or we may have a paroxysmal cough which is aggravated upon lying down and again upon rising in the morning. This is characteristic of the bronchial irritation, or it may be a hacking cough which is quite persistent, without much expectoration.

The sputum varies in character and quantity, depending upon the amount of surface involved in the trouble. In case of sub-acute bronchitis there is frequently a large amount of expectorated matter, as is the case in bronchitis generally—whether tubercular or not. In fact, in many of the cases of non-tubercular bronchitis there is more expectoration than in other conditions. Old people who suffer from this disease will frequently expectorate in the fore part of the day a large quantity, and every one supposes it to be consumption on this account. Blood is rather common, although many cases of tuberculosis terminate without the presence of blood in the sputum. This sputum consists of mucus, pus and various ingredients which you would expect from the destructive process going on. The cough sometimes subsides and the patient shows marked symptoms of improvement. Then upon some slight exposure to cold, or from undue exercise there comes a relapse and the patient is attacked with acute bronchitis and following that an aggravation of the former symptoms; and so it is "up and down" with these cases for months and years.

In the treatment of this disease much depends upon the amount

of surface involved and the condition of the balance of the system. If the digestive system is in good condition we have much to aid us in helping these cases. If there is a failure of the digestive apparatus we can do but little. These patients require to be well fed. We give such patients more food during the time the temperature is elevated than in any other cases. We supply them with food which is fattening and which will best sustain them. Then again, a great deal depends upon the means of the individual, his surroundings and ability to secure food which is most palatable and which will support and sustain him. The starchy and fat foods are used pretty generally. Some practitioners use a large amount of meat. A system of treatment which was adopted by one of the physicians of this city, and which is now carried out by two of his followers, consists in the use of beef nearly raw and the use of a large quantity of hot water. It is claimed this has benefited some. So far as I have noted, the cases which have been benefited by this treatment were not cases of pulmonary tuberculosis. It is the general impression that if a person is emaciated he has consumption. Chronic dyspepsia, which comes from eating food which is indigestible or from overeating can possibly be cured by some such system of diet. It is my opinion that most of these cures were made in cases of that kind of dyspepsia accompanied perhaps by bronchial irritation. There may have been some cough, but I have known cases diagnosed as tuberculosis who had no cough, they were simply emaciated and unable to take food. Put these patients upon a proper diet of any kind—a restricted diet which is reasonable, avoiding those kinds of food which have been harmful to them, and they would get well.

Cod liver oil is given both as a food and as a medicine. I do not use it. I do not now remember ever prescribing a dose of cod liver oil. I have treated cases who insisted upon taking it and I allowed a few of them to do so. Generally they are glad of any excuse to keep from taking it. So far as nourishment goes, sweet cream is the best food that you can give a patient of this kind. It is a food which will sustain, nourish and fatten more than any other. Cereals with the cream and properly sweetened are favorite foods with me, and I like to have these patients take if possible a half pint of sweet cream in 24 hours. It is taken in connection with fruit in the summer time. Some have a loathing for milk, and some people have cultivated such peculiar tastes that it is hard to feed them. You can instruct and guide many in regard to eating and they will do as you desire. I give meat in moderate quantity and generally advise it twice daily. I would not have a patient eat heartily of meat at the

time the temperature is highest. I would not, however, avoid giving meat in the fore part of the day before the fever comes on. Ordinarily patients who have fever cannot take meat and digest it. Some of them take animal broths instead. I would give the patient something between meals—some plain broth, a cup of malted milk or something of that kind, so that he would ordinarily get something every three hours. In other words, I make a study of the patient's appetite and his ability to digest food and feed him as well as I can. Alcoholic stimulants are given quite extensively in this disease. I believe that in some cases they are beneficial. That is something that we have to handle very carefully. There is a prejudice against the use of such stimulants, and properly too, but in many cases I have found that alcoholic stimulants given in small quantities aid in stimulating the digestion and frequently bring the patient up when it seems as though nothing else will. Different preparations of malt are beneficial in this direction—in helping the patient to digest his food. I would not hesitate—regardless of prejudice against the careless use of this means of treatment—to give alcoholic stimulants carefully to these patients. I have had many a case get up in the morning with no desire for food and utterly prostrated, and have given that patient two dr. of whiskey in hot water and after an hour he is able to rise and take his ordinary food. It must be given carefully. Avoid overstimulation, and note its effect upon the digestion. In some cases it may act in an opposite way and interfere with digestion. In such cases its use should be avoided. It is not common to find tuberculosis in those who are addicted to the use of stimulants. There is a common belief that alcohol has a curative effect. Years ago it was supposed to have more influence than it has now; it has been carried to an excess in many cases, and I regret to say I have seen cases who have become addicted to the use of stimulants through its administration in cases of this kind. We have to consider all these facts and be exceedingly careful.

Fruits which contain sugar, in season, are especially valuable, and patients should be encouraged to take fruit. Milk in some cases can be taken freely. In other cases I would not advise it at all, but cream is to be advised in all cases.

In regard to exercise a great mistake is frequently made. Many of these cases are exercised to death. A patient who has suffered from tubercular disease or from feebleness of breathing power without any actual disease, is unable to take the average amount of exercise, and I object to exercise being taken in the fore part of the day and before taking nourishment. It is a foolish notion that a person





should exercise before breakfast. A patient of that kind is the last one who should take a walk before taking anything into the stomach. The pulse of such a patient is feeble in the morning, and he can hardly move about, and to compel him to take a long walk is simply cruelty. I have these patients remain in bed as long as they choose in the morning, give them something to eat before getting up, and then have them get up quietly and slowly; and in the afternoon take a walk or ride. Carriage riding is best for them, providing they are properly protected from the cold and moisture, and there is no better treatment for a case of this kind than to have a horse and buggy at his command so that he can go out when he chooses.

Sleep must of course be secured. Such patients should have all the sleep they can take. It is a great advantage to them to be able to sleep. At the time they take their heartiest meal they should have considerable rest. Most people eat one meal a day which is perhaps as much as the other two, and before such a meal the patient should rest. This has very much to do with the recovery of anyone who is exhausted. In the Dansville Sanitarium they have what is called the rest hour, which occurs after the mid-day meal. Everyone is compelled to go to his room and lie down for an hour and not attempt to do anything at all. That is a positive and absolute rule and if it were not beneficial they would not have carried it out for all these years. It is a custom which is beneficial in all cases who are debilitated, and I encourage this in all old people and people who are reduced in flesh. My father's mother lived to be 94 and died then from acute disease. She retained her faculties until the last and was as bright at 94 as most women at 70. As long as I can remember she was in the habit of lying down for an hour in the middle of the day. No matter how many were about her she would excuse herself and take her mid-day nap, and after that she would get up and be as bright as ever.

As to the question of bathing, there is no method of treatment which is so productive of harm as excessive bathing. I was called to see a lady yesterday who had taken some kind of a course of instruction in a school here and she was taking a cold bath every morning and going through some gymnastics before taking any food at all. She had also some massage at this place, which was quite a distance from her home; after that a little more exercise and after that massage for an hour or more. Besides this she was taking two warm water tub baths a week. These were taken in the fore part of the day and she would go out after. I said to her, "If I am going to treat you I am going to put a stop to all this business. You cannot

go to that place. You are to stop your cold baths in the morning. If you want to take your tub baths twice a week take them the last thing before retiring at night." No one can take a tub bath in the fore part of the day and go out without being liable to take cold. In regard to the cold bath in the morning, it is supposed that the patient is strong and vigorous and gets up a healthy glow and feels better, but it is at the expense of strength. When a person exhausts his vitality in some kind of work, mental or physical, he should not go to a gymnasium or take a cold bath. A man of sedentary habits, who does not work more than six or eight hours a day can go to a place of that kind and take exercise and be benefited thereby, but for a student or a physician who is tired when he is through with his work I do not believe that it is of any particular benefit. I am glad to see that the new system of treatment for tuberculosis does not demand anything of that kind. The system which they are using now depends upon plenty of nourishing food and all the fresh air the patient can take.

The question of a change of climate will come up, and it is a pretty difficult thing to decide to send patient away from home when it means so much to him. Sometimes this is a good thing. Some homes are scarcely fit to live in, but those cases generally do not have enough money to go away. A person may leave home and be benefited providing he has means enough to secure the comforts of home when he gets to his journey's end. Sending a patient to some distant point where he is obliged to live carefully and economically and not get a sufficient amount of food is not good practice. I had a couple of patients in Texas who were almost frozen out three years ago. They had the coldest winter they ever had there; the houses are not properly built. In southern California they suffer from cold in some of the best hospitals in the coldest weather, and a person must have considerable means to travel and be comfortable. Moreover a person who has never been away from home and goes away when he is sick will be so homesick that it will counteract all benefit derived in any other way. I remember a gentleman whom I sent away twenty years ago. He was a city official here. He was a homebody and never went out. He had tuberculosis in an advanced stage and was advised by his friends to go to California, and I also recommended it. He had means enough to live comfortably and could have enjoyed himself there, but he had never been away from home. He remained there only two months and came back saying he would rather die here than live there. If the patient has means to take some other member of the family with him then it might be considered. A high and dry climate is much to be preferred in most of



these cases. If the patient has had hemorrhage I would not select such a high altitude. I would not send a patient who has been subject to hemorrhage to Colorado or Arizona. I would rather send such a patient to southern California, Texas, or even to Florida, although there we have other things to contend with, such as malarial fever. Thomasville, Ga., has a good climate most of the time. The border States, Tennessee, and North Carolina are all right during the Spring and Fall. Some patients do better in a cold climate. A cold climate is not considered as detrimental as formerly, provided it is continuous and dry. A damp, cold atmosphere is to be avoided. In the Adirondacks the patients do well and they are allowed to go out every day, with a temperature ranging from ten to twenty or thirty degrees below zero.

My method of home treatment in cases of this kind is the following. I do not allow the patient to go out in very bad weather. I do not hesitate to house him up the most of the time during the Winter in this climate. I like to have considerable room in the house, where the patient can go about. As soon as it is dry, even if it is a little cold, if the patient is able, I advise him to go out. I do not allow excessive bathing, and then I administer the indicated remedy for the condition or trouble he has, because these people have various complications. If he takes cold and has acute bronchitis I give Aconite for a day or so. If he has a cough which is aggravated when he goes to bed and also when he gets up in the morning, I give Drosera. I have given this in scores of cases, the patient having a bottle of this remedy takes it when he has such a cough, or he has a bottle of Aconite on hand which he takes just the moment he thinks he has taken cold and continues until the temperature is reduced. Eupatorium is one of the best remedies where we have the fever which is characteristic of this remedy, and the general aching, that occurs in many of these cases.

The treatment of a case of tuberculosis consists largely in the treatment of inflammation as it arises. These people suffer from colds, that is, as a result of exposure they have an inflammation either of the bronchial tubes or some section of the lung or of the pleura for which they require treatment. The treatment by Koch's lymph which was the common treatment in Germany fifteen years ago after its first introduction by Prof. Koch, has been largely modified or abandoned; the dose has been diminished. The homeopathic profession has carried out that line of treatment in a different manner. The products have been triturated and diluted. I have used for the past seven or eight years a preparation which is manufactured by

Halsey Bros. under the supervision of Prof. Arnulphy—the 30th trituration tablets. This I have used quite extensively, and my method is to give one tablet of the 30th each night, continuing it at least one week, and then if there seems to be no increased trouble or if there is an indication for some other remedy I omit the treatment for about a week afterwards returning to it, giving it each alternate week in some cases for several months. I have found it the best treatment for inflammation and indurated lymph glands—those cases which are generally supposed to be tubercular. The majority of these cases are probably tubercular, although it is not possible to demonstrate that in all cases, I am thoroughly satisfied, however, that in some of the most severe cases I have seen I have received marked benefit from the use of this preparation. One case, a young lady, when she came, had enlargement of the glands of the right side of the neck, which were certainly as large as a fist, and the left side was probably half that size, and you can discern nothing of it now. She was under treatment continuously for probably two years and occasionally since that time. I do not give this remedy when patients are suffering from acute inflammation, if they have taken a recent cold. I prefer to wait until the trouble is more latent, and treat these acute symptoms according to the general method in bronchitis, broncho-pneumonia or pneumonia. There are a number of patients who are apparently as healthy as ever who had for months the symptoms of tuberculosis. There was no doubt about it. I do not believe any one can cure a case of tuberculosis in which the major part of one lung is involved. The cases in which the deposit is confined, as many of them are, to the apex of one lung are the only ones I have seen benefited or cured—involving probably not more than 10 per cent. of the lung. Cases of acute tuberculosis in which there is a deposit of tubercles in the whole of both lungs are absolutely incurable. They can be modified and controlled for some time, but usually they break down suddenly and go at once.

You will frequently be called upon to treat a case of hemorrhage, because where there is a cavity we get a serious hemorrhage. In many of these cases the hemorrhage is produced by the continuous cough. The patient will cough unceasingly from the influence which this destruction of the lung produces and the blood oozing out into this cavity is expelled by this process. I do not hesitate to relieve these cases or prescribe something which would by direct drug force overcome this irritation. I dissolve one tablet of morphia sulphate— $\frac{1}{4}$ of a grain—in eight teaspoonfuls of water, that makes 1-32 of a grain at a dose, and I have the patient take one teaspoonful of this

every hour until the cough is relieved. One of my patients, a widow, a hard working woman, having a family to care for, is a janitress of a block. When she came to me first she was in charge of a school building and was obliged to get out early, and do heavy work, washing windows, etc. She had a very severe cough, from which she had been suffering for some time, and she did not come to me until she was expectorating blood considerably. I had the sputum examined and found she had tuberculosis. I controlled the case by means of the above remedy, and she has had a hemorrhage only occasionally since. I treated the cough and finally the other symptoms and then gave her Tuberculinum 30th. She gained flesh and weight and the cough subsided and she was apparently well and had no more treatment for perhaps a year. If she coughs severely for a day or two she begins to expectorate blood, and this blood comes from the apex of the left lung where there is undoubtedly a cicatrix from the first ulceration. I do not have occasion to give this very often, but a case of hemorrhage which comes from persistent coughing can be controlled in this way until some other way presents itself.

For the hemorrhage I have given Ipecac from the 1st to the 3rd dilution, 10 drops in 4 ounces of water, teaspoonful doses. I do not remember now of giving Ergot except in one case. This is a remedy which is used extensively by the old school. In the case of a young man who was raising an immense amount of blood I gave $\frac{1}{2}$ grain of Ergotin once in twelve hours as long as necessary and this kept it under control. This, I think, was about the most serious case of hemorrhage I have ever seen that recovered. He did recover from this condition and was able to go West where he improved. He was on a ranch and was doing well, when he was taken with an attack of pneumonia from which he did not recover, but was brought home to die. The other remedies which I use are the remedies which I have recommended for bronchitis or pneumonia and the remedies which you have heard me prescribe in the clinics for the bowel symptoms and diarrhoea.

The diet for these cases of chronic enteritis which occur in tuberculosis is the same as in ordinary cases of that trouble. I desire to urge what I have said before, that most of these cases should be treated at home. I would not urge a patient to go away when it is such a great sacrifice, for it usually terminates fatally. The majority of cases you will be called upon to treat will be better off where they are. I cannot forget some cases which I have sent away and which have terminated unfavorably. I remember a case I sent to Texas three years ago. Several cases from here had done remarkably well

on a ranch about thirty miles from San Antonio. This young man went down there on my advice; the winter was extremely cold and he took cold and had pneumonia, from which he died and was brought home in a coffin. No matter how little you have to do with advising the patient to go away it does not help you in a business way. The friends felt as if it were wrong to have sent him away, although I had given them the opportunity of choice. I have lost prestige in a number of families who have not employed me since, simply because something of that kind has occurred, and now I simply state that there is such a place where patients go and let them write and enquire and then decide for themselves.

LA GRIPPE.

This is a disease which is exceedingly common and which is productive of more complications, and directly or indirectly the cause of more deaths than any other disease. We have this during the winter season. We have had from time immemorial epidemics of influenza. In 1647 there occurred an epidemic which prevailed throughout Europe. The first serious epidemic of which we know anything occurred in 1889-1890. This began in Asia in the Fall of 1889, extended to Russia, and in time reached Great Britain and began to manifest itself in the United States. In January 1890 we had the most severe epidemic that we have ever had in this country. There were more deaths during that month in the city of Cleveland than ever occurred, excepting one month when we had a terrible death rate from cholera infantum. In 1878, when we had cholera infantum here, there were in one week 243 deaths, of which 120 were children under one year of age. In recent years we have had very little of that disease.—During this month in 1890 we had over 200 deaths per week. The epidemic seemed to diminish, so that by April there was not much of it. 1890-91 there was another epidemic. This occurred later. The month of the greatest mortality was April. We have had it every year since, and this winter there has been more of it than last winter.

It is acknowledged to be of germ origin, caused by the bacillus of Pfeifer, which was discovered in 1892. In 1890 although there was a vigorous search for this germ it was not discovered. It manifests itself chiefly by its effects upon the respiratory tract. It produces inflammation of some mucous surface in most cases. In some cases it seems to affect the nervous system, and in others it seems to act upon the intestinal canal, but the respiratory tract is the part chiefly affected. It differs from an ordinary cold by its intense prostration



and the suddenness of its onset. The patient is taken with severe chill, perhaps while he is in the midst of business, and there is intense prostration, so that he is obliged to sit or lie down and is unable to walk to the street car. The prostration continues, and is the chief symptom which characterizes the trouble. Very soon he has an intense fever, the temperature running up to 105. He may have an attack of bronchitis, accompanied with great prostration. This trouble is much more likely to extend to the lung than ordinary bronchial irritation, so we frequently have lobular pneumonia. During the prevalence of this disease we very frequently have also an epidemic of croupous pneumonia, that is, the germ of croupous pneumonia is in the atmosphere, and these cases being predisposed to such disease by their prostration and by the localized inflammation are liable to have this other serious trouble. Thus we may have a large number of deaths which come indirectly from la grippe, but directly from a more serious affair—croupous pneumonia. Every year since this has prevailed, we have seen patients who have convalesced from la grippe, and gotten up; they are weak, debilitated and easily prostrated; the appetite is impaired, bowels are constipated, and they do not sleep well; they go out and are exposed to some sudden change of temperature and the result is croupous pneumonia, and when they contract croupous pneumonia in that condition they are liable to die. We have lost a number of physicians in that way. Prof. Cleveland, formerly of this institution, and Prof. Frank Weed died in 1890 from such exposure. We have learned more about it since and exercise a great deal of care in the management of such cases. People have become afraid of the disease, consequently they take better care of themselves. We have a good many cases of what is termed winter cholera—cases of cholera morbus which come on suddenly. There is colic and some vomiting, and finally a profuse watery diarrhoea, with great prostration. Occasionally the stools change in character and become dysenteric. I have had a number of cases in which we had diarrhoea of this sort and finally dysentery. I have seen many cases of acute dysentery with the liquid stools and later the false membrane that comes with this disease.

The germ of la grippe is the cause of this peculiar winter bowel disturbance. We may have also, intense cerebral congestion, and, less frequently, spinal meningitis. Intense headache is characteristic of this trouble. The headache is about as severe as the patient ever suffered from, generally frontal, but sometimes occipital, and will remain as long as the temperature remains at a high point. Then there is lumbago, in some cases—intense pain in the lumbar region, the

pain, however, being in the muscles. This is as intense as that which comes with smallpox, but taking the fever and bronchial irritation one would suspect that it was la grippe coming on. This infection, like the infection of many other diseases, is liable to develop suppuration. Suppuration of the middle ear is exceedingly common. Aurists are always busy when we have an epidemic of this kind. I have one case under treatment now where a lady was removed to the hospital, where she had a mastoid operation. She had suppuration of both ears. I do not hesitate to send such cases to an aurist at once and have him examine and treat them, for as a rule it is not more than 24 or 48 hours before suppuration takes place after the first indication of inflammation, so they need as prompt attention as in scarlet fever, diphtheria or measles.

So far as the treatment of the disease is concerned it does not differ from the treatment of these various troubles when produced by other causes. We have bronchitis which requires treatment, so we prescribe for that disease, and so with broncho-pneumonia and pleuritis. At the onset when the patient is taken with such an intense chill, followed very soon by high fever, I prefer Gelsemium to any other remedy. This is the remedy which I usually give for the fever of la grippe, especially if it is inclined very soon to be remitting in character, as is many times the case. I use Belladonna for the intense frontal headache and for the extreme dryness of the skin, mouth and throat. Many cases of follicular tonsillitis develop also in this trouble general inflammation of the throat with the tonsils inflamed considerably; on account of the intensity of the fever and the prostration we may at first fear that it is a case of diphtheria. In many of these cases Belladonna is the chief remedy. There are some cases in which Aconite would be better than either of the other two, where we have extreme restlessness and where there is not the intense prostration that comes with Gelsemium and the fever is not accompanied by any tendency to remission. Selecting the one of these three remedies which is most indicated I follow it up until the intensity of the fever has subsided and then prescribe for the other conditions which develop. For the profuse watery diarrhoea, which is preceded by colic and aggravated by the taking of food or drink, Croton tig. is the remedy. If it develops into a dysenteric condition it does not necessarily contraindicate this remedy. The dysentery will be controlled somewhat by the remedy which controls the diarrhoea and in many cases it is not necessary to change the remedy if we find the dysenteric stool. Podophyllum is a remedy which will frequently be

called for, the indications for which I have frequently given you. Mercury, Colocynth and Nux Vomica are good remedies.

Much depends upon what you feed your patient. Such cases should not take any cold drinks at all, but should live upon some farinaceous gruel, if they take any food whatsoever, and but little at a time, and in a liquid form. As I said before, cases of la grippe, must be watched over and not dismissed until every trouble has disappeared. These patients cannot go back to work as soon as if they had suffered from an ordinary cold. You will find the pulse soft and compressible, and they are inclined to feel faint, and if they are compelled to stand they feel debilitated and weak; a patient in that condition needs to be extremely careful about exposing himself or attempting to do any great amount of work. We have, I believe, a large increase in the number of cases of tuberculosis since the advent of la grippe, for these patients are prostrated and they have had much irritation of the respiratory tract. Knowing as we do that the germs of tuberculosis are everywhere and that the patient is very liable to develop the disease, we have to be exceedingly careful. These patients are to be kept under our surveillance, and any serious indication is to be discovered at once. So with intestinal troubles. Frequently following an attack of diarrhoea or dysentery or any inflammation of the intestines, the disease is liable to become sub-acute or chronic, and much depends upon the treatment as to whether it will continue in a sub-acute form, or be entirely cured.

CHAPTER IV.

DISEASES OF THE DIGESTIVE TRACT.

THE ŒSOPHAGUS.

The œsophagus is sometimes the seat of inflammations produced by irritants, chiefly acids or alkalies, taken into the mouth intentionally or carelessly. Cases where Ammonia or common Lye have been swallowed by mistake are not uncommon. If this irritant is sufficient, we frequently have as a result a stricture or contraction of the tube, so that the treatment consists of allaying the inflammation and preventing a stricture. The treatment of stricture is largely surgical. You are not to use any means to this end during the time of acute inflammation. It may possibly be necessary for you to introduce the bougie, and I have sometimes used a stomach tube to feed a child, but ordinarily you will wait until the inflammation has subsided. Then you will detect the stricture by the difficulty the child has in swallowing. I would allow no solid food to be taken until I was positive of this. You will find that the child in swallowing milk will take a certain amount, retain it for a time, and then expel it. It cannot pass the point of stricture, and you may thus know that the œsophagus is obstructed. Sometimes the obstruction is incomplete and the milk will run down slowly. The surgical treatment consists of dilatation.

There is another kind of stricture which comes on in old people and is due to malignant disease,—cancer. As you already know, cancer rarely occurs in a patient under forty years of age, and it comes on slowly. If it is high enough in the neck, you can notice a full induration externally,—a nodulated enlargement which is characteristic of this disease. It may be below the manubrium, where you cannot feel it, or it may be at the cardiac end of the stomach, but the indications point to the presence of a stricture. The patient learns that he cannot swallow as he used to; he has to cough it up again, perhaps by a process of “gagging” he dislodges what is there, he can take fluids better than solids, and what is peculiar about it is that strictures of the œsophagus are almost invariably spasmodic.

I have tried the use of Atropine in strictures of all kinds, and especially strictures of the urethra, and find that spasmodic strictures can be somewhat controlled by it.

If you find a patient above forty years of age who has suffered for months from a stricture, you may be pretty sure that it is due to malignant disease. There are some other causes, aside from this, but this is the rule.

THE ABDOMEN.

For diagnosing disease in the abdomen, we use all of the methods which are used in diseases of the chest, but we depend chiefly upon palpation and percussion. Mensuration is of little account. Sometimes we can determine by comparative measurement of the two sides, any abnormality. By palpation we can detect the presence of solids, determine their shape to some extent, determine whether they are movable or not, and if so, in what direction,—whether in all directions or only in one or two. Ordinarily, the abnormal enlargement which you find in the abdomen is not movable to any great extent; that is, it is not movable in all directions; it is attached at some point, being either connected to the viscera or by inflammatory attachments.

The position of the patient for careful palpation should be upon the back, with the shoulders elevated and the knees flexed. You should note that the patient's mind is withdrawn from this examination. He should not exert any influence over the muscles of the abdomen. You sometimes fail in this examination because the recti muscles are held firm by the will of the patient. He will prevent your making as good an examination as you otherwise could. It may be impossible for him to withdraw his little force, but ordinarily, simply mentioning it will cause the patient's mind to be withdrawn, and the muscles to relax. Take the tips of the fingers, using both hands at the same time, and carefully knead the abdomen. What makes it exceedingly difficult to detect anything here is the fact that the contents of the stomach and intestines are constantly changing. Sometimes they are filled with matter, and at other times only filled with gas. If there is obstruction at some point in the canal, you generally find gas above this point, while below the contents are solid. The contour of the abdomen will be uniform, if the peritoneal cavity is filled with fluid. If the quantity is not great, it will vary according to the position of the patient, the fluid gravitating to the lowest point, so that if the patient were sitting or standing, you would perhaps find dullness below the umbilicus and resonance above, while if he were

lying down, you would find resonance clear down to the pubes, with dullness all along the back. A collection of fluid within a sac is more circumscribed, and does not vary with the position of the body, as for instance, an ovarian cyst or an abscess of any kind,—it would be the same, whatever the position of the patient.

By percussion you can detect the presence of solids or fluids, both producing dullness. In a case of malignant disease, you would find dullness, and if the parietes were thin, the nodulated condition which we find in such diseases. You can also get by palpation what is termed fluctuation. You can detect, by placing the tips of the fingers on each side, and tapping one side gently, the impulse of the fluid. This is a very good method of detecting fluid, but is not always reliable because something may intervene between the two hands, but by percussion you find the dullness, and ordinarily by palpation you will be able to distinguish between solids and fluids. If fluctuation were present it would be an additional indication of fluid. You should remember the normal size of all the viscera here, the liver and spleen, especially the liver, so as to be able to detect any abnormal enlargement. In simple hypertrophy of the liver, the contour is the same as normally, but it is enlarged in every way. In malignant disease, you will find a nodulated condition, irregular margins, and in scirrhus, if the patient is thin, you can sometimes detect the hob-nail appearance. In this disease it is enlarged in the first stage and contracted in the second. The history will here guide you somewhat. If it has existed for a long time, you would expect contraction to take place, but if only a few months, enlargement.

THE STOMACH.

The Stomach is the seat of a great deal of disease and of many changes which require the attention of the physician. Diseases of the stomach, in other words, are very common. The indications of disease are, chiefly, loss of appetite, feeling of distress and heaviness, which continues as long as the food is undigested or remains in the stomach, sometimes acute pain, occasionally paroxysmal, and almost invariably nausea and vomiting. Vomiting is one of the principal symptoms, but may occur in connection with other diseases and conditions, so that it is not always an indication of disease of the stomach. It appears in the first stage of Diphtheria or Scarlet Fever, and in Meningitis. It frequently comes as a result of taking drugs or poisons, either intentionally or accidentally. It is often a result of the taking of food which remains undigested. The tendency to vomiting

varies much in different individuals. Some are so extremely sensitive that the smell of anything obnoxious, the odor of certain articles of food, or certain peculiar odors, will cause vomiting. As you all know, this is one of the common symptoms of pregnancy, occurring in a large number of cases. Vomiting, if long-continued, will excite disease of the stomach. Even in pregnancy we sometimes get Gastritis and ulceration as a result of this persistent straining. I mention this so that you will understand that even the vomiting of pregnancy should be controlled, if possible. There is a false idea prevalent among the laity to the effect that this is unavoidable and should be left alone. Almost invariably it can be controlled to a large extent, if not stopped altogether. If the vomiting is due to poison, you can generally detect the poison in the vomited substance. For instance, opium can usually be thus detected and serves as a guide in the treatment of the case. If it occurs in connection with the diseases referred to,—Diphtheria, Scarlet Fever, or Meningitis, you will have a high fever in connection with the vomiting, higher than you would find in Gastritis. The history of the case should be investigated to some extent with reference to the tendency to vomiting. If the report is that vomiting occurs upon the slightest occasion, then it is not of such serious consequence. The vomiting of blood would usually indicate some lesion of the stomach. You are to determine, if you can, whether this blood came from the stomach or entered the stomach from above. It may be from epistaxis which occurred the day before, or there may have been hemorrhage from the throat or even from the lungs, the blood having been swallowed instead of expectorated. If this blood is of recent origin it is more highly-colored and less coagulated, but ordinarily it is coagulated to some extent. Hemorrhage of the stomach is usually preceded or accompanied by vomiting. There is nausea and the usual distress in the epigastrium. In a perforating ulcer of the stomach we frequently have vomiting of red blood, the hemorrhage being of recent origin and continuous. In Carcinoma, the blood is frequently changed by the secretions of the stomach and resembles coffee-grounds. There is a kind of hemorrhage which is sometimes alarming,—what is termed Vicarious hemorrhage. The hemorrhage occurs instead of the usual menstrual flow. This may occur from any part, frequently from the stomach. You are most liable to have hemorrhage of bright red blood from Gastritis or ulceration. You must not make these rules absolute, however, for I have seen bright red blood from Carcinoma, and blood resembling coffee-grounds from Gastritis, but these are exceptional cases. The reason for this is that the blood has remained in the stomach and become acid. Sometimes

in a perforating ulcer you have quite a serious hemorrhage in which the stomach is filled. A person may die from hemorrhage of Carcinoma. In such a case it would be bright red, but ordinarily in a case of Carcinoma it would be of the character described.

GASTRITIS.

Gastritis or inflammation of the stomach may be produced, like all other inflammations, by sudden exposure to a cold or damp atmosphere, or by the introduction into the stomach of something which is irritating, or which is too hot or too cold, as the eating of ice cream, the drinking of hot water, or the taking of solid food which is altogether too hot. It is a common trouble in inebriates, and more liable to occur in those of irregular habits, who eat a large meal and then go a long time without food. One attack predisposes to another. It is very liable to degenerate into a subacute or chronic inflammation. The changes which take place in the stomach are similar to those which result in inflammations everywhere,—redness, heat, and swelling. There is extreme dryness of the surface at first, but finally a profuse secretion of mucus, which may become purulent. The mucous surface of the stomach is not as firm as that of the respiratory tract and is more easily destroyed, so that ulceration would take place more readily, this being a common result. We have abrasions of the epithelial layer, or an ulcer which destroys not only the epithelial layer, but extends deeper and destroys the submucous or muscular coat. The symptoms indicating this inflammation are: some chilliness with death-like faintness, so that the patient is obliged to lie down, the pulse small and usually slow, the extremities cold and the countenance bluish and pinched. This condition appears in the chief disturbances of the alimentary canal. It is something like that which you have in Asiatic Cholera, but not to the same extent. You find it in Cholera Morbus more than in Gastritis, but whenever there is a serious disturbance of the alimentary canal there is this tendency to prostration. Very soon there occurs a reaction, and fever follows. Ordinarily the fever of Gastritis is not very high, rarely above 102 degrees, but after a few days it frequently becomes remitting and perhaps intermitting, before it ceases. Pain is present in all these cases. This is referred to the epigastrium and there is not only tenderness on pressure but constant pain. Moderate pressure at first relieves it to some extent. The reason of this is probably that it prevents all motion there. It relieves just as holding the chest relieves the pain of Pleuritis. Nausea is usually present, and sometimes vomiting. If



the stomach is full at the time, the contents are usually expelled. Occasionally the vomiting, or attempt at vomiting, continues. In a bad case there is almost constant nausea with attempt at vomiting. Of course, after the contents of the stomach are expelled, there come only the gastric secretions with an admixture of bile. The common impression which prevails among the laity that when bile is seen in the vomited matter, vomiting is beneficial, is incorrect. Anyone who vomits long enough will vomit bile, because this action extends to the duodenum as well as to the stomach. If the nausea is extreme, there is anti-peristaltic action all the time and the bile flows upward into the stomach. If there is obstruction of the bowel, the reverse action goes still farther, as far as the obstruction; perhaps there is vomiting of fecal matter, which is pretty certain evidence of obstruction. In ordinary Gastritis, we have occasional attacks of vomiting and pain in the epigastrium. As a rule, these symptoms are aggravated by taking fluid, even the smallest quantity producing aggravation. As long as the nausea continues, there is a tendency to pallor. The face is not flushed as in ordinary fever; the pulse is somewhat small and does not become full. It is a favorable indication if the pulse becomes soft and full. It shows that you are having a good reaction. If a person has cardiac disease, he is in a more dangerous condition during an attack of Gastritis.

Treatment.—In reference to the treatment of Gastritis: You are not to introduce anything into the stomach which aggravates the trouble. In a bad case you may not be able to give anything at all this way. I have sustained patients for six weeks or two months, giving the nourishment per rectum, depending upon that altogether. If you find that your patient's condition is aggravated by even a teaspoonful of fluid, do not give it in this way, but depend upon the rectal method. I have used various preparations for this purpose. Milk is a good thing, and I have used the various beef extracts considerably. Ordinarily, the patient cannot retain more than two ounces in the rectum without expelling some of it, so that two ounces given in the rectum every six or every four hours will be sufficient. You might give nutritive enemata every three or four hours, and enemata of water when the patient is thirsty. If the rectum is so irritable as to expel it, then you will have to wait perhaps twelve or twenty-four hours before repeating it. This is an important matter in diseases of the upper part of the alimentary canal, and is not to be neglected, for it will save many lives. In preparing beef extract for this purpose, make it a little stronger than when given by the mouth. Before using any of these enemata, the bowel should be evacuated

with a small quantity of water at least once in three days, and then wait three hours before you give the nutritive enemata. There is a kind of syringe which is used for this purpose. I would not attempt to use an ordinary syringe. It ought to hold the requisite amount, or at least it should be such that the nurse could measure the exact amount to be given. In giving this, the patient should lie upon the left side, if possible. It should be thrown into the rectum slowly, and a small compress held over the anus for a few minutes, for if it is expelled, it will occur immediately. I have found trouble in giving eggs in this way, and hence I do not give them.

Remedies.—The remedies which are indicated in this trouble are those called for in inflammations generally.

Aconite is the principal remedy in the first stage, giving it in water, a teaspoonful at a time, if the patient can stand it. Sometimes I have given the medicated powders when the patient could not take any water at all. Sometimes I use the No. 6 pills, which can be more easily taken than pellets. This is a common way of prescribing for children who have Gastritis. In such cases, I give the nurse a vial of saturated powders, and a sample powder from which she can judge of the quantity to give.

Arsenicum is the remedy in some cases of Gastritis where it has been produced by taking of cold things, such as ice cream. In such cases the stage of collapse is long and there is not a good reaction. The patient is very much reduced, and the fever is very irregular, but not very high. The prostration is extreme. It is a good remedy in the Gastritis of old people, and those who are reduced from any cause.

Ipecac is a good remedy where vomiting is the principal symptom, and the patient is sick all the time. This I generally give in powder, unless the patient objects. In such cases I always give very small doses,—not over one grain, first moistening the tongue with a few drops of water and perhaps giving a few drops afterward. As soon as you note improvement, the interval between doses is to be prolonged. I ordinarily give the 3x trituration, sometimes the 6x, and frequently in children, the 30x.

Nux Vomica is a good remedy in those addicted to the use of stimulants or tobacco. Ordinarily you will find the bowels constipated, some ineffectual effort at stool, the prostration of Nux, with perhaps some tendency to spasm. Contraction and jerking of the muscles of the lower extremities is common to this drug, and there is frequently a characteristic intermitting pulse.

Tartar Emetic is a great remedy for nausea, and is called for, too, in these cases. The prostration of Tartar Emetic is more severe,

if anything, than that of Arsenicum. It has an effect upon the systemic condition. You find the cyanotic condition, blueness of the nose and feet, and a nausea which is worse than that of Ipecac. It will be all the more indicated if you have any catarrhal inflammation of the respiratory tract, with coughing and moist rales, indicating a general Bronchitis.

Bryonia in some cases would be of value where indicated,—absolute quiet relieving pain, with faintness upon rising, and the general symptoms of this remedy, such as Rheumatism, pains in the joints and muscles, etc.

These cases must be watched carefully for a long time, as must also the diet. After rectal dieting, give but small quantities by the stomach. I ordinarily give one teaspoonful every hour at first, and gradually increase the quantity and lengthen the intervals. You can give some gruel at first, then animal broth, and lastly, solid food, feeling your way carefully, and if the patient's condition is aggravated, going back again. In all such cases, the patient must be kept in the recumbent position for a long time. He must not get up suddenly; in fact, he must not get up during his sickness at all. He should never get up for the purpose of urination, for he is liable to faint, and fainting in such a case might prove serious.

CHRONIC GASTRITIS.

Acute gastritis frequently assumes a subacute or chronic form. This is also true of the catarrhal inflammations. There are many of these cases which make incomplete recoveries, and in which many of the symptoms remain, rendering a cure much more difficult, that is, unless you can cure the acute inflammation within a certain time, it becomes obstinate and requires a longer time, although the dangers to life are much less. These cases of subacute gastritis are extremely common, and will come to you after having been treated by many other physicians, or by themselves in various ways. In the first place, many of these cases are due to intemperate habits, or the use of some improper food, or, in some cases, some habit of life beyond the control of the patient. It is not always an easy matter to secure proper diet, and therefore the cure of the case is obstructed and perhaps becomes impossible. The symptoms of chronic Gastritis are numerous. You will generally find tenderness over the stomach, at some point perhaps more than others,—but the whole epigastric region is sensitive in most cases, and commonly some portion of the intestinal canal is inflamed, and you may find chronic effects below.

The tongue is usually furred, the coat being light colored, and rather thick. Occasionally it is pale and flabby, œdematous, showing the imprints of the teeth. Nausea is produced very readily. The odor of cooking food or anything disagreeable will produce it, and in many cases the taking of solid food induces vomiting, so that the persons affected have learned to avoid solids. In a few cases they cannot fill the stomach with liquids without having to expel them, so that they have to take small quantities. They have learned what they can take, and about how much. These people are emaciated, nervous and sleepless, or their sleep is troubled with dreams. Headache is very common. Vertigo and some defect of vision is not uncommon, and all of the symptoms which result from defective nutrition. The bowels are usually constipated, and occasionally undigested food will be found in the discharges. There is frequently an attack of diarrhœa after several days of constipation, with a good deal of colic, griping, and gas in the intestines preceding the diarrhœa. This is more liable to occur, of course, in cases where the intestine is involved, as well as the stomach, but frequently when the food passes into the bowel in an undigested state, it becomes a source of irritation, and brings about this diarrhœa later. These people are unable to do an ordinary amount of work, and in attempting to do it, they become seriously exhausted; they are fatigued all the time, and as a rule they are melancholy, and it is no wonder. Melancholia usually, when it amounts to insanity, is accompanied by trouble of this sort, and it is pretty hard for anyone to develop hope to any large extent unless the food is digested. Of course, we sometimes find this reversed where this condition of the stomach is caused by the mental condition.

Treatment.—In the treatment of these cases, the first thing to do is to find something that will nourish the patient without distressing him, so the nourishing food which is put up in the plainest manner and which can be taken without injury to the stomach, is to be preferred. We now have many preparations of animal food which are of this class. Some patients can take food partially solid better than liquid. I find many such persons who can take a small amount of rare beef, with a little toast, and a very little liquid, better than anything else. The distension of the stomach in some cases is a detriment and is therefore to be avoided. Some people cannot take a few ounces of solid food without throwing it up. In most of these cases, you will have to give the food at shorter intervals than ordinarily. I generally give a designated quantity every three hours. You cannot lay down a rule by which to feed dyspeptics. It depends largely upon the former diet. Different nationalities have different kinds of

food, as also different individuals. No one should attempt to eat anything which he does not relish. It is utterly useless to give people that which they abhor. Therefore, I generally follow somewhat the wishes of the patient.

Remedies.—As far as remedies are concerned, there is scarcely a remedy in the *Materia Medica* which is not called for in some case. You can find any amount of symptoms in these cases and the selection will have to be made with care.

Colocynth is the remedy in many cases, where we have attacks of colic, pain in the epigastrium, colic, in other words, which may come on after the taking of food, or without it. This colic is generally relieved by taking hot drinks. The pains of Colocynth are generally not aggravated by pressure, but are sometimes relieved by this, so that the patient will hold the stomach during this pain.

Arsenicum is of value in some cases where there is debility and irregular fever, especially in cases occurring in malarious districts.

Ipecac is not to be forgotten where there is almost constant nausea. It is to be given carefully and the interval prolonged and the attenuation raised as the patient improves.

Nux Vomica you should not forget in the dyspepsia of inebriates and tobacco users.

For the discomfort and pain, you will usually find relief from the application of heat externally. These patients must be limited in the amount of work performed.

If all vitality is exhausted in mental effort or physical labor, there is not enough left to digest a meal. A meal can be most easily digested if the person will lie down, or keep moderately quiet after taking it. We observe this in the lower animals. One should not go to the table exhausted. A person overheated and exhausted cannot eat much, and if he does, he regurgitates it. Therefore the hearty meal of the day should be taken when he is not exhausted, and when it can be followed by rest. The eating of late dinners is not to be encouraged in all cases, but for those who are engaged in active business in the middle of the day, it is better to eat the hearty meal of the day after the day's work is over. These things must be attended to in the treatment of indigestion. Certain articles of food must be prohibited. Occasionally the patient will persist in eating something which he cannot digest and you will have to emphatically prohibit it. Do not be too hasty in promising relief in such cases.

ULCERATION.

There is a kind of ulceration of the stomach which is uncommon, but worthy of attention, because of its serious character. It is what is called the round or perforating ulcer. It is usually circular, and the result of some inflammation, and may occur as a result of general Gastritis, or from taking some improper article of food, some irritant, and as a rule we find this in certain debilitated individuals,—in women more than men, in the ratio, it is said of 40 to 60 per cent. As a rule we find this ulcer nearer the pyloric than the cardiac end of the stomach. We sometimes find similar ulcers in the duodenum. This kind of ulceration is produced, nobody knows how, from extensive abrasions of the skin, more particularly of the duodenum or the pyloric orifice of the stomach, they are so closely connected that we can describe them together. I never saw but one case die of this trouble,—the case of a railway engineer who was burned, and whose recovery was exceedingly doubtful, anyway. These ulcers are probably more common than is generally supposed, that is, there are many who recover without the disease having been discovered. It is not uncommon to find cicatrices in the stomach in patients who have died from some other cause, indicating that they have had an ulcer there. If near the pyloric orifice, it is liable to produce a constriction, and if it occurs in the duodenum, the cicatrix contracts the canal, and it may become the source of obstruction. I have seen several instances of this kind. I have seen other instances where the thickening due to duodenitis has been the source of trouble. This round ulcer is of about the same character as ulcers of mucous surfaces generally. It is developed at the expense of the mucous layer. Its diameter is greater within than without, if there is perforation, and if you could see one of these where the patient died of perforation, you would find the opening small without, but several times larger within the stomach, but fortunately there is usually an infiltration with this process which prevents ulceration. This is a great safeguard against perforation of the alimentary canal in general. The Symptoms of this ulcer are epigastric pain, frequently more localized than the ordinary pains of the stomach, and extending through to the back. This extension of pain through to the back is somewhat characteristic of this disease. The pain seems to extend through from the anterior surface to the back. It is almost invariably aggravated by the taking of food. Vomiting is not uncommon and there is frequently hemorrhage. The hemorrhage is not often excessive, but indicates that it is of recent origin. It is not of the coffee-ground variety, except in

rare cases. The patient who suffers from this kind of ulceration is generally under middle age, differing in that respect from Cancer, which is usually after that time. The pains of Gastralgia are frequently relieved by the taking of food, not so with the organic diseases, such as cancer or ulceration. This disease is slow in its progress as a rule, and usually you will find that the patient has suffered for several weeks before you are called. On account of the inability of the patient to take food, he is emaciated, but there is no indication of cachexia. The emaciation is not as extreme as in Cancer, neither does it take place as rapidly, for I have already told you that in Cancer we find about the most rapid emaciation of any disease. There are exceptions to this, but this is the rule. I have seen patients lose as much as fifty to seventy pounds in three months.

Treatment.—In the treatment of these cases, you are to find out how serious the trouble is and how much food the patient can take. It may be that you will have to resort to rectal feeding at once, and I should not hesitate to do so if everything in the stomach produces irritation. By rectal feeding, you can cure such a case in half the time otherwise required. The patient may tell you that certain foods can be taken without disturbance, but if the food does not agree with the patient at all, or there is a rapid emaciation, begin rectal feeding at once.

Remedies.—The remedies are about the same as those in Gastritis, and it takes time to heal these ulcers. At least four weeks will be required to heal any case of this kind. It may be longer, and there is always danger of perforation, and when this occurs, unless it is known and an operation performed at once, death occurs in a very short time. This is a very important question to decide at that point. If you have positive indications of perforation, some think operation unnecessary, but after perforation has occurred and the collapse comes, there can be no hesitancy about the procedure. The abdomen can be opened and cleansed with perhaps some hope of saving life. But ordinarily the patient is so much reduced that the operation would be hazardous. It is to be thought of in every case of perforation, for death is sure in a short time unless something is done.

CANCER OF THE STOMACH.

Cancer of the stomach is much more common than this form of perforation. Cancer attacks the stomach frequently. It is a disease which you will meet with occasionally, almost annually if your practice is extensive. This disease usually occurs after forty years

of age. You must not understand that a person of thirty-nine could not have cancer and one of forty-one could, but we have to draw the line somewhere. It is not an absolute rule, for we occasionally find it in children. I have seen it as early as the sixth year, but that is uncommon. Usually the first question to ask when cancer is suspected, is as to the age. Another important question to ask in these cases is whether there is any hereditary tendency. It may be best to secure this information from someone else, but it is of importance, for it is one of the diseases in which the predisposition is inherited. It is especially strong if one of the parents had it. We do not stop with the parents, but investigate as to grand-parents, aunts and other relatives. Life Insurance Companies make careful investigation as to this. These companies have no interest in the case farther than dollars and cents. It is purely a business transaction, and they think it will pay. This is the best kind of proof we can have that hereditary tendency has much to do with this disease. I have spoken about the emaciation. Of course, in connection with this, comes prostration, and if the disease is of several months standing, what is termed the cancer cachexia. This is a peculiar appearance. The skin is a light yellow, somewhat shrunken, drier than normally, lacking the moisture which is ordinarily present, and the patient has an "old" appearance. When you come to the physical examination, you may or may not be able to detect the cancer. If the wall of the abdomen is an inch and a half or two inches thick, you can feel nothing through it, but if the patient is extremely thin and the wall of the abdomen is relaxed, you can detect this very readily by the nodulated appearance of cancerous tumor. It is unyielding because of its close relation with the surrounding structure. It is characteristic of the cancer that it attacks everything in its vicinity. It is not circumscribed, as some growths are. You may detect it early, before that stage is reached, but cancer of the pylorus extends down to the duodenum and its surroundings. If it were an innocent growth, it would not extend this way. Cancer of the breast involves the skin, the mammary gland, and may cover the whole pleura and lung. It stops at nothing. The diagnosis of internal cancer is exceedingly difficult, but the physician who first succeeds in detecting it, adds materially to his reputation, for the reason that it has been overlooked by others, and the post mortem which is held usually shows that he is correct. The general practitioner should always favor the holding of post mortems. It is always of advantage, and you should properly instruct your clientage on the subject. I believe it adds to the reputation of a physician to take this stand. The great majority of cancers are of

the hard variety and can be recognized by their nodulated appearance. The ordinary length of time that a patient lives with internal cancer is from twelve to eighteen months. A few cases live longer, but ordinarily they die within that time. The marked symptom which appears first is the sudden and rapid emaciation. Then there is some indication that the stomach is at fault. If the cancer is at the pylorus, we have evidences of obstruction. Solid food is not able to escape from the stomach. The patient finds after taking food that he is uncomfortable, there is a sensation of heaviness and fullness in the stomach, and finally he is nauseated and vomits. Liquid food produces no such trouble. We sometimes find an enormous distension of the stomach. I have seen one which would hold two gallons of water, and which occupied nearly the whole abdominal cavity. In connection with this enormous enlargement of the stomach, there is a corresponding loss of contractile power. It is not unusual to find a stomach which holds one gallon. This may be due to the excessive use of liquids. If the patient is extremely thin, there is not much difficulty in detecting this hardness at the pylorus, but in some cases it is difficult, especially where it starts at the head of the pancreas and extends to the duodenum and pylorus. Sometimes it is impossible to detect it.

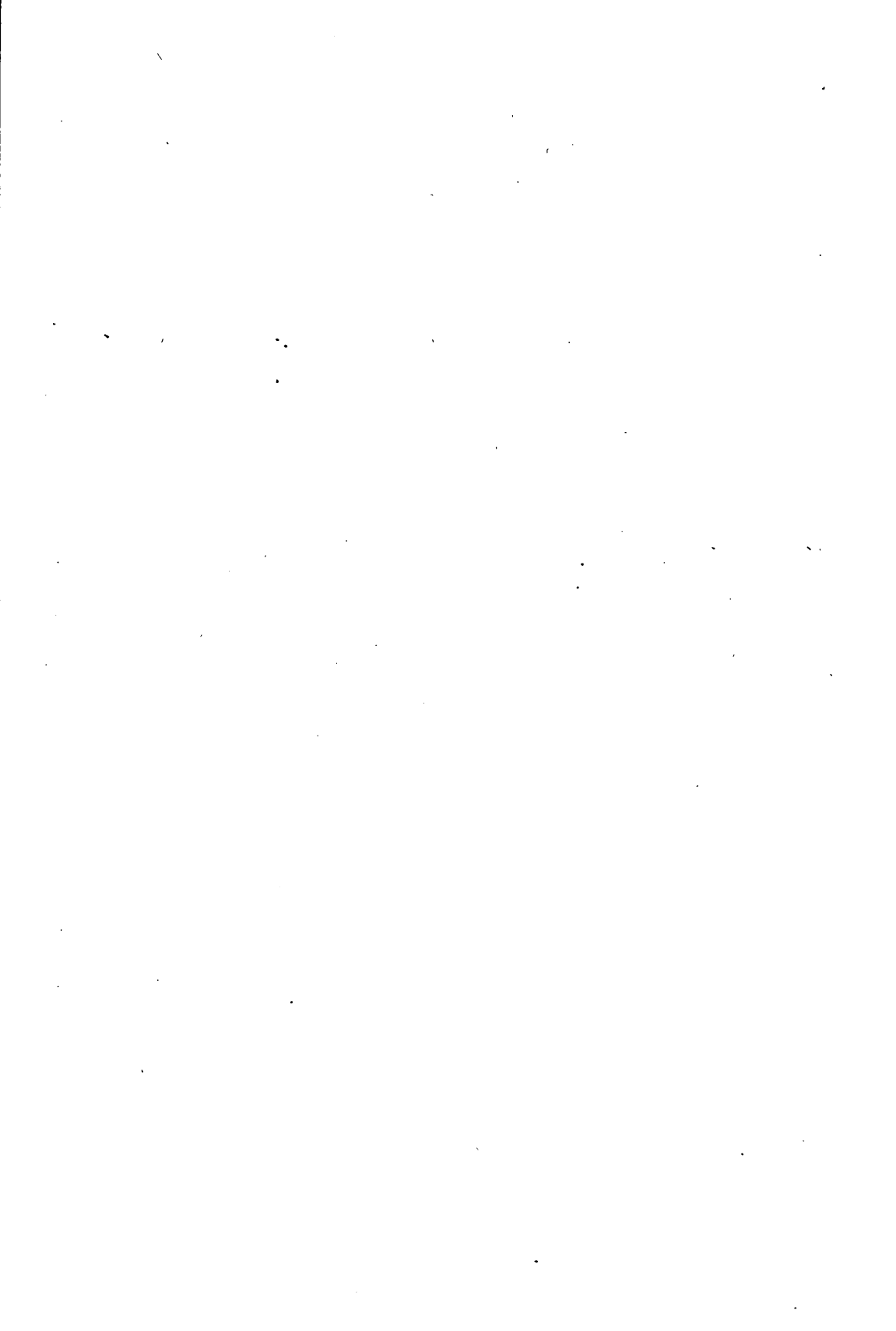
Cancer of the greater curvature is not so common, but affects the omentum as well. I have seen very few cases of cancer of the œsophagus. To examine these cases, you should flex the knees, raise the shoulders, and relax the abdominal muscles as much as possible. By palpation you will carry your fingers up above the ribs, but in some cases you will have to depend largely upon subjective symptoms and a positive diagnosis is difficult to make. Bear in mind that if a person above forty years of age has an obstruction of the alimentary canal, the chances are nine to one that it is due to a malignant growth. You frequently have to differentiate between cancer of the stomach and the results of inflammation,—chiefly ulceration. In ulceration of the stomach, your patient is usually a woman under middle age, (women being most subject to it) and the case has a history of gastric irritation of long standing. There is very little emaciation, the countenance generally has a healthy appearance, the lips and cheeks have a good color, the nausea is not excessive, she is able to take some food, especially liquid food, and retain it, but if the ulceration is considerable we have a lancinating pain, which is more prominent than in cancer. The pain in cancer comes late in the disease, unless we have pain from the obstruction. The taking of anything into the stomach will aggravate the pain of ulceration, while in cancer, liquids

disturb but little. The hemorrhage we have referred to before. The coffee-ground vomiting is not absolutely diagnostic of cancer, but when present, corroborates. Something similar to it may appear in ulceration, but that would be uncommon. I have been puzzled more to distinguish between those diseases than perhaps any other two. In a person after middle age, then, where there is emaciation and vomiting after taking food, your first thought will be of cancer, and in the majority of cases it will prove true. It is a good rule to follow, that unless you can feel the cancer, you had better not say there is one, and when you do feel something, be sure that it is the characteristic nodulated growth of cancer. The main thing in this disease is the diagnosis, but you will be expected to treat the case, and you can do much to alleviate the suffering. Change of diet will relieve the symptoms, and I have seen patients improve so much that they would not believe they had cancer. The main thing in the treatment is to give the patient some nourishing food that he can take care of. Here the concentrated animal foods, of which we have many good preparations, will be of value. Milk is not to be used in these cases at all. You might as well give solid food. Any animal broth which the patient relishes is to be preferred. A stated quantity should be given about once in three hours, and this quantity should not be large. You should not distend the stomach, and thus cause pain and interference with the action of the stomach. In some cases where there is almost complete obstruction, or the stomach is not even able to stand liquid food, you will have to sustain the patient by feeding per rectum. There are many cases where you will have to resort to it to lengthen life for a time. These patients should be kept quiet and not allowed to exhaust their strength, and no matter how well they feel, they should be restrained as to the amount of labor performed. On no account should they be allowed to eat any solid food. The temptation is strong and you will have to lay down the law pretty strictly.

Remedies.—I scarcely think that remedies are of much account in the treatment of this disease. Symptoms may arise from time to time which will call for various remedies, but I believe it is useless to prescribe anything for the cancer itself.

INTESTINAL CANAL.

The intestinal canal is liable to about the same diseases as the stomach. The most common trouble of the intestinal canal, and especially the small intestines, is inflammation.



ENTERITIS.

Enteritis is a common disease, especially where it attacks the mucous membranes,—catarrhal enteritis. Like all other inflammations it may come on from external cold, from taking of improper food, or from traumatic influence, in fact, any of the causes referred to under inflammation of the stomach. In rare instances, this inflammation may come from the presence of fæcal matter retained too long, in other words, from constipation. It is more liable to occur in the summer season, and is often produced by the taking of impure water. It is one of the most common diseases of camp life, an attack coming on frequently after each move and change of water. Unquestionably much of the water used by armies is impure surface water, and this is one way in which it shows its effects. It is liable to be produced by the taking of exceedingly cold food, and, more rarely, by taking exceedingly hot food. Sometimes the taking of acids will affect these surfaces, and in some persons it will produce this trouble almost invariably. It frequently comes, too, from mental influences. Just how, it is difficult to tell. It may be by producing excessive secretion of the glands, but in many persons predisposed to diarrhœa, sudden fright or emotion will produce such effects. Being upon the feet a great deal, or excessive walking may produce it. Railroad engineers, who are constantly shaken up, have a good deal of this trouble, and for such persons special garments are made, which can be worn to advantage.

Catarrhal enteritis may be very mild, as most cases are, and of short duration, but many cases assume a sub-acute or chronic form, and the patients are ever after liable to acute attacks, so that slight exposure to cold, errors of diet, undue exertion, or possibly fright, grief, or other mental emotion, produce more attacks with this colicky griping, followed by frequent stools, more or less liquid in character. If we could examine the intestinal canal in such cases, we would find a considerable portion of it thickened, and if the primary attack has been severe, there might be adhesions, and it is frequently the case that a section of the bowel has lost to a large extent its peristaltic power,—the muscular coat has ceased to be as active as before. Obstruction or partial obstruction may occur and there is griping from the increased peristaltic action above until the contents are forced through the section which has lost its peristaltic action. The great majority of severe cases are followed by some permanent effect which is liable to produce pain or disease. Again, the mucous surface is frequently left in such shape that the slightest cold or chill will pro-

duce trouble. There is constipation for one, two or three days and there is a feeling of discomfort, followed by the usual accompaniments of diarrhoea, griping in the region of the umbilicus, accumulation of gas, liquid stools, accompanied by mucus. The chronic form is much more common than the acute form, that is, most of the cases which you will be called upon to treat have a history of chronic diarrhoea. To treat them well requires considerable care, and you must have control of the diet or all remedies will fail. The correction of the diet is most important, and perhaps, next to that, the management of exercise and exposure. A person who is on his feet twelve hours or more out of the twenty-four, can hardly be cured of a chronic, persistent diarrhoea. Riding is beneficial, and a change to an occupation which allows a man to ride in a carriage which is not rough, will generally relieve and frequently cure. Exposure to cold must be avoided. Then comes the question of diet, and this is the most difficult thing to control. Patients persist in eating articles which they know will injure them. They are exceedingly hungry after these attacks of diarrhoea, and it requires a good deal of will power to prevent their taking detrimental food. During the attack, allow no cold drinks whatever, and only moderate quantities of warm drinks. Even if the patient is able to go about his business, he must not drink cold water. Tea is a better drink than coffee. I rarely allow these patients to take coffee. Tea is a moderate astringent and is the best drink that can be taken except perhaps hot water. I do not allow solid food. Gruel is the best thing, and should be given frequently,—say every two hours, in quantities not to exceed two ounces. If the patient has no appetite, I should much rather he would not eat at all. Ordinarily it does no harm to go without food for twenty-four or forty-eight hours. Then, as the appetite returns, he can take something slightly nourishing. I would not allow much milk, for that is about the same as solid food. Boiled milk I would not allow at all, although this is contrary to the popular impression. However, you can allow a little milk in connection with other drinks. The animal broths I do not allow in this stage of the trouble, but as the patient improves, I allow them to be taken, and something a little more solid. Toast, if properly made, and not disliked by the patient, is a good article of food. No bread which is fresh should be allowed. A little later I would allow meat sparingly, and then starchy foods. It is a common mistake to continue this sick diet after the patient is well. As soon as the trouble is corrected, there is a demand for acids perhaps, which are a valuable aid to digestion. So I allow the patient to take fruits in moderation, and they are always of value when the



diarrhœa has been controlled. By their use, you can avoid the constipation which otherwise follows these attacks. Ordinarily, the patient should take the food that he relishes, for he will not properly digest food which he does not like. As soon as the patient has recovered from the diarrhœa, begin to feed him carefully the food he will relish, but as soon as there is any indication of a return of the trouble, he must go back at once to the former diet. He must understand this, and do it without waiting to be told by the physician.

Remedies.—The remedies which are here indicated are those called for in diarrhœa generally. We treat catarrhal enteritis usually as diarrhœa. A very large number of remedies are indicated in diarrhœa and skill is required in their selection. A remedy may be well indicated, and yet if given too strong, may aggravate the trouble. Many times the 3x will produce an aggravation. It is sure to result from Merc. Corr., Podoph., and some of those powerful cathartics. For the primary trouble, where we have considerable fever, great restlessness, and other indications for Aconite, this remedy will control it and perhaps be the only remedy required. You must not make the mistake, a little later on, when some other remedy is well indicated to give Aconite because you have a little fever. Any remedy which covers the other symptoms will control the fever. If it is modified after forty-eight hours, some other remedy may be called for. There may be a cerebral congestion which will call for Belladonna, or a malarial headache (common in malarial districts) which will call for Gelsemium. Epidemic dysentery often assumes this form and calls for Gel. Nux Vomica, although a remedy for constipation, is just as good a remedy for dysentery or diarrhœa. The cases of diarrhœa are not as common as the cases of dysentery calling for it. Here it may be due to overwork or the excessive use of stimulants. There is aggravation in the fore part of the day, with some tendency to tenesmus and relief after stool. Colocynth is called for in a good many cases of diarrhœa. It has the characteristic pain of catarrhal enteritis, colicky pains in the umbilical region, indicating involvement of the small intestines, and profuse liquid stools. The severity of the colic is the chief characteristic of this remedy. Croton Tig. (not lower than 6x) is one of the best remedies we have in diarrhœa. It will probably cure as many—or more—cases than any other. We have here a griping which is almost as painful but not as persistent as in Colocynth. There is considerable gas, evacuation is profuse and very sudden, and affords relief. Sometimes a little later there is tenesmus, but in the first stage there is very little. I have some patients who keep this remedy on hand, and by its use, prevent or

modify these attacks which occur occasionally. Podophyllum is a valuable remedy in diarrhœa, perhaps second to Croton. Croton is not aggravated at any particular time, but Podophyllum is worse in the early part of the day. It is especially valuable for children. There is some gas, but not as much as in Croton or Aloës. We frequently find a diarrhœa in which there are no abnormal ingredients. It is natural, except that it is excessively liquid and profuse. You will find this in children frequently, and occasionally in adults. There is feebleness of the sphincter or rectal wall, and as soon as it accumulates it is expelled. The child may have ten or twelve stools a day of the kind described. This is one kind calling for Podo. We find undigested food in these cases also. No other remedy is as applicable to the prolapsus ani of these cases. Chamomilla is essentially a remedy for the diarrhœa of children, but is frequently called for in adults. We here pay considerable attention to the mental state. There is irritability and fretfulness. The child has to be carried all the time to allay this mental irritability. In children we find considerable mucus, and occasionally there is an intermitting flow of bile. Some of these stools are remarkably white, and some are loaded with bile. This may occur also in adults. Aloës must not be forgotten in the treatment of diarrhœa. It is not used as much as it should be. With this remedy also we have a morning aggravation. The patient is frequently compelled to get out of bed on this account. This does not occur in Podo. There is a great accumulation of gas, the movement of which can be distinctly heard about the room, and felt by palpation. The stool occurs suddenly, and what is characteristic of Aloës is that there is an involvement of the bladder, so that frequently the patient in attempting to urinate will have an evacuation of the bowel. There is a close relation between the sphincters.

PHLEGMONOUS ENTERITIS.

Another kind of Enteritis is the "inflammation of the bowels" which people so much dread, and which is frequently fatal in a short time. This is what is termed Phlegmonous Enteritis, an inflammation which involves not only the mucous coat, but all the layers of the bowel. This may originate from some solid substance in the intestine, it may come from some traumatic influence, and sometimes occurs from impaction of the contents of the intestine. I have seen a case produced from eating cheese, where it had lodged in a portion of the bowel and produced this inflammation. So nuts, and other solid substances, passing through the alimentary canal unchanged, may become

the source of irritation and produce this. It may occur idiopathically, without any apparent local cause, but this is rather unusual. The indications of this kind of inflammation are a little more pronounced than the catarrhal enteritis. There is a severe chill, followed by considerable fever. You frequently find a temperature of 104 degrees at your first visit. Vomiting is an early symptom and sometimes very persistent. The pain is severe, and the patient directs his attention to a spot where the trouble is located. It is not as general as the pain of catarrhal enteritis, which is more diffused, but in some particular spot you find tenderness upon pressure where the patient experiences constant pain. Often the bowel is obstructed at this point. This is due partially to thickening of the walls in consequence of this severe inflammation, and partially to the presence of something within the canal which may have been the exciting cause. In the case where it was produced by eating cheese, there was complete obstruction. In such cases there is vomiting of fecal matter, in fact, the bowel is empty above this point. The symptoms are the same as in any obstruction of the bowel, as intussusception or strangulated hernia. In some cases this vomiting may continue for three or four days when not controlled by medication. Constipation is the rule in these cases, and frequently it is obstinate. In such cases as the one referred to, the bowels may not move for a long time. It may be three weeks before the contents will pass away. The relief experienced by the patient at this time, and the character of the discharge, indicate that this was the source of the trouble. The inflammation extends to the peritoneum, and there is therefore localized peritonitis. In some cases this may become general, and many patients die from that alone, a general suppurating peritonitis. Abscesses are occasionally formed within the wall of the intestine, and discharge within the canal, producing a deep ulcer, or the bowel may become attached to some other contiguous portion, and there may be an opening into some other portion of the intestinal tract,—a fistulous opening. Or there may be adhesions to the abdominal parietes, causing an abscess opening externally,—a resulting fistula through which fecal matter would escape. These patients are very liable to have a second attack. Indeed, they rarely recover without leaving some permanent change.

Frequently there results a contraction of the bowel at this point, a stricture which always remains a cause of annoyance and perhaps future attacks. In many cases they have to be very careful of what they eat for the balance of life, knowing that certain articles of food will produce serious trouble. As I have often told you, you cannot have a serious inflammation of the alimentary canal without leaving

some permanent trouble. Sometimes this thickening is such that it can be detected by percussion, and this is the point to which the patient will direct your attention when he has trouble. So it is exceedingly important that the disease be stopped in its early stage.

Treatment.—In the treatment of this inflammation, keep the patient and position of the intestine as quiet as possible. The diet is a very important point. Be exceedingly careful about what is allowed to go into the stomach. The simplest form of food, in small quantities, must be given, say two teaspoonfuls of farinaceous gruel once an hour, gradually increasing it. If the patient is constantly nauseated, avoid giving anything for two or three days, and then, if necessary, you can feed by the rectum. The large intestine should be thoroughly cleared of all fecal matter early during the attack, as this may aid somewhat in relieving the bowel from above. But let me warn you from attempting to flush the bowel by water or pressure. You are liable to do harm to the inflamed part. Let it alone if it is inflamed. You cannot help matters by forcing water into it or distending it, but relieve the bowel gently from below. After this is done, it is useless to use the syringe once or twice a day, as is sometimes done. It can be used about once in three days. This will carry off what remains of the food in the rectum, and may excite peristaltic action. To relieve the patient, I use external warm applications, of which I have spoken before. Possibly dry heat will answer, but I prefer a slippery elm poultice, carefully used and applied as warm as the patient can bear it,—not warm enough to blister the patient, but somewhat warmer than the body. It should be renewed before it becomes cold. The second poultice should be at hand, so that the patient will not be uncovered more than a second or two, and the poultice had better be covered with a piece of oiled silk, to prevent dampening the clothing. This is something the physician should attend to himself, for many amateur nurses, and sometimes professional nurses are not so careful as they should be. A cold poultice will certainly aggravate, and a poultice so wet as to dampen the sheets will be a detriment. What is done had better be done right or not done at all.

Remedies.—As far as the remedies are concerned, the first thing to do is to control the fever and subdue the inflammation. There is no better remedy than Aconite for this, and it should be given frequently, certainly every half-hour. Sometimes I give it every fifteen minutes. You can use the 2x in these cases, and I would not object to the 1x, gradually diminishing the dose as the patient improves. In a few cases, where we have the cerebral indications, Belladonna



might be preferable, but there are not many cases of this kind. You may continue the use of Aconite a little longer in a case of this kind than in pneumonia. It may be continued three or four days, and in some cases this is all that will be required, but ordinarily something else will be required to complete the cure. You may have indications for Colocynth, as I have given them to you. You may have the perspiration which indicates Mercurius, a general moisture of the skin, with but little relief of the fever, the characteristic tongue, showing the imprints of the teeth, excessive salivation, possibly with swelling of the salivary glands. Nux Vomica may be called for, especially in those cases where we prescribe it on general principles, after the use of cathartics or stimulants. The trouble may have resulted from the use of some powerful cathartic, like Podophyllum. The quantity of food is gradually increased as the patient improves, but it should be a long time before solid foods are permitted. After the fever has subsided, we use animal broths carefully, the amount to be given being prescribed at each visit. It is well, where there is a frequent changing of nurses, to write down the directions for giving food, as well as the medicine, so that there can be no excuse for disobedience of your instructions. In case the vomiting is persistent, and we have this excessive peristaltic action, I would, in extreme cases control the excessive action of the bowel by administering Morphia hypodermically. I am very careful about recommending this, for fear you will carry it to the extreme, but in cases where vomiting lasts three or four days, the hypodermic administration of Morphia may be the only thing that will control it. There is one objection to the use of Morphia in these cases: it increases the constipation. But it is the lesser of two evils where you have this persistent vomiting. Do not be foolish enough to administer it by the mouth. It cannot be depended upon, and may aggravate the trouble. As soon as the vomiting ceases, unless, (note this exception) the pain is intense and cannot be otherwise relieved, stop it. You may be obliged to give it for the relief of pain, for it affords mechanical relief by lessening the peristaltic action. As soon as there is some action of the intestine, and you find that there is desire on the part of the patient to evacuate the bowel, you can encourage it by injections. Enemas of warm water once a day will relieve this sensation and empty the rectum. On no account should you ever give, in these cases, anything by the mouth that acts upon the bowel. You are liable to bring on worse trouble. You are to warn the patient and friends not to give cathartics, even for weeks afterward. The diet must be looked after. The patient must have the law read to him when convalescing, in regard

to his future, for it will be a long time before he can eat all kinds of foods. He gradually improves, but there will probably always be trouble there, and for many weeks he will have to be exceedingly careful.

DYSENTERY,

Another kind of inflammation which is exceedingly common, and sometimes epidemic, is called dysentery. This is an inflammation of the rectum primarily, involving the sigmoid flexure and sometimes the rest of the intestine, and perhaps a general inflammation of the alimentary canal. But dysentery belongs to the lower part of the intestine. What is characteristic of the stools is that they are small. At first the bowel is evacuated, there occurs a large stool, liquid or semi-liquid in character, and a little later we find the characteristic stool, more in quantity, consisting of mucus, blood, and later, pus and other abnormal ingredients. In many cases there appear shreds of membrane, resulting from croupous deposit. This indicates a severe form and usually occurs in the epidemic variety. Another characteristic of dysentery is tenesmus and straining. There is excessive contraction of the sphincter ani, a constant feeling in many cases as though there was more there to be evacuated, and a constant desire to evacuate the bowel. If allowed to sit up, he likes to sit upon the chair a long time, for this relieves this tenesmus. The general symptoms vary somewhat according to the severity of the case. In mild cases the fever is limited, and perhaps the temperature is not above 102 degrees. There is very little chilliness at first, followed by fever. Such sporadic cases are controlled very readily, a few days sufficing to relieve the trouble. However, it is different in the severe form. In malignant or epidemic dysentery we have a fever which assumes a typhoid character and lasts three or four weeks. It is called typhoid-dysentery. We here have high temperature at first, with delirium, sordes upon the teeth, and the typhoid tongue which is characteristic of the typhoid state. There may be inflammation of the parotid gland, and in some cases epistaxis occurs. There may be considerable hemorrhage from the bowel. This disease is contagious. That is, we have a variety which is contagious, sometimes extending over a large tract of country. The most severe epidemic in this country occurred in 1865, when it was pretty general. It was extremely fatal, sometimes two, three or four dying in a family. The contagion lies in the evacuated matter, the same as in typhoid. The stools contain this poison, and should therefore be cared for as in typhoid fever. Place them where they will do no harm. They should



not be put into a sewer until thoroughly disinfected, which can be done with ordinary Chloride of Lime. Then the bed and bedding must be looked after carefully. That the patient should be isolated is self-evident. This should be done in almost any case of sickness. There is no sense in having a crowd of people about the patient, no matter what the trouble, and if there is any doubt about the nature of the case, give the patient the benefit of the doubt, and you will get the benefit of it yourself if it should prove to be contagious. The patient should keep absolutely quiet. It is difficult to secure this in some cases, but I will not attempt to treat a case of dysentery unless the patient will go to bed and stay there. He must not even get up to evacuate the bowels. He must not be allowed to be upon his feet. Another important thing is to instruct him to postpone this effort at stool as long as he can. He can gain nothing by straining, and the effort of will will aid materially in controlling this tenesmus. Of course, if the patient is delirious, you cannot call upon his will. It is exceedingly important that the physician be informed as to the character of the evacuations. You should therefore have the privilege of seeing the discharges at least twice a day. In fact, you will not know much about your case unless you do see these. You can tell by their appearance about the severity of the attack, and whether there is any improvement. You may be able to detect pus and shreds of false membrane. We sometimes find, in bad cases, a bloody water. This is really an oozing, a hemorrhage consisting largely of serum of blood. It has the appearance of beef-brine,—a brownish red liquid. It is an unfavorable symptom. I dislike also to see a large quantity of pus, or to notice a very offensive odor, for sometimes we have gangrene in these cases especially if they have lasted a long time. It is always a good indication to find evacuations less frequent, tenesmus less, and some fecal matter. As the patient improves, the quantity of fecal matter increases until finally there is a normal stool. In regard to the diet: It is the same as in phlegmonous enteritis,—a small amount of liquids, and I do not give these people anything cold to drink. I object to the ice given by some on the promise that they will allow it to dissolve before swallowing, which they never do. As far as the system is concerned, hot water is as good as cold. Therefore the drinks should be hot and taken in small quantities. Do not overload the stomach, and gradually increase as improvement occurs. Allow no solid food until the dysentery is controlled, and then come to it gradually. The patient should be kept in bed until the evacuations are normal.

Remedies.—The remedies are about the same as in enteritis. At

first, Aconite will be called for most. In the epidemic cases, where there is a typhoid condition, I obtain better results from Gelsemium. Belladonna in some cases is a valuable remedy. Then we have a large class of remedies for dysentery, and great care must be exercised in making a selection. Most of the remedies are cathartics and will produce aggravations unless given in small doses. Merc. Corr. has been given much more than it deserves. It has been advised many times when it was utterly useless. There is a class of cases, however, where it is the best remedy. I have never seen it act satisfactorily unless there was extreme tenesmus of the bladder as well as the rectum. Here it will relieve if you give a small enough dose. I give the 6x, 12x or 30x. I believe that in any case where it was indicated, you would get an aggravation from the 3x. Therefore I advise nothing lower than the 6x. If you still have indications, but do not get relief, go higher and prolong the intervals between doses as soon as you do get relief. Do not continue it any longer than you are obliged to. The patient recovers better if you lengthen the interval. Nux Vomica is a good remedy for dysentery. With Nux there is considerable tenesmus, and the main characteristic is that the pain and tenesmus disappear after the evacuation and you procure complete relief for a time. It is all the better indicated if produced by a cathartic, which is very common. It is a remedy to be thought of for inebriates. Podophyllum is an exceedingly valuable remedy in dysentery. There is a morning aggravation. It is a valuable remedy in children. Sometimes we have cerebral symptoms. Rolling of the head from side to side will call for this remedy, as will also prolapsus ani. It also is a powerful agent and you will have to be careful to avoid aggravating the case. It is not as powerful as Merc. Corr., and the 3x may be given. The 6x would be low enough in a child, and we may go higher. Merc. Sol. resembles Nux except that the pains and tenesmus are not relieved, but rather aggravated by the evacuation. We here have small stools and itching of the back. (The latter is a common symptom of dysentery.) There is a tendency to a moisture of the skin, and the characteristic tongue. It has a different sphere from Merc. Corr. Leptandra is a valuable remedy following Mercurius. It is a good remedy after heavy doses of Calomel. Its symptoms are similar to those of Mercurius. It can be given lower if you choose, and in some cases the 2x trituration will be all right. I prefer to use Podophyllin and Leptandrin.



TYPHILITIS, PERITYPHILITIS OR APPENDICITIS.

These conditions present features which will demand the attention of the physician, for many of these cases properly belong in his domain. This is an inflammation of the first part of the colon, either the cæcum or its covering, or the appendix vermiformis. This cul-de-sac or blind pouch frequently becomes a place of lodgment for foreign particles or undigested substances, which there bring a localized inflammation, sometimes terminating in ulceration, perforation or abscess. The presence of these irritating particles is not all the cause of the trouble, for ordinarily, I believe, this part of the bowel is able to take care of itself, and by its contraction force downward and outward all these substances. So that primarily, in my opinion, there has been some defect in the wall—some previous inflammation which has destroyed the usefulness of the muscular coat of the bowel. Sometimes there are deformities, especially in connection with the appendix which make the lodgment more liable to occur, but even in the appendix, it is my opinion that if the muscular wall be healthy, foreign substances will be forced out without much difficulty.

The common cause of appendicitis, the most common, according to some authors, is the presence of some germ which finds lodgment here. This may occur in connection with any of the infectious diseases, such as scarlet fever, diphtheria, smallpox, measles or chickenpox, or in connection with typhoid fever or tuberculosis. It is true you may get inflammation here from traumatic causes. This we shall except, because it properly belongs to the domain of surgery, but ordinarily the abscess is superficial, as the trouble comes from without, and the integument and superficial tissues are first involved.

Appendicitis is not common, but occurring once, a person is much more liable to a second attack. It sometimes comes on very suddenly, at other times slowly,—so insidiously that we mistrust any severe inflammation. The inflammation of the cæcum may be simply a catarrhal trouble which would not amount to anything serious, and this might occur in the ascending colon, but when the muscular walls become involved, we are liable to get extreme thickening, so that the walls would be thick enough to produce dullness from without, and the bowel would be as large as if pretty well filled with fæcal matter. It is capable of more thickening than almost any other portion in the intestine. The inflammation is liable to terminate in abscess, and it is curious how these abscesses which originate in the region of the cæcum will extend. We have records of cases where they opened into the ileum and other portions of the small intestine, even passing

upward into the thorax. I have seen a number of cases which opened externally, and it is surprising how much induration we get prior to the formation of the abscess. Where the trouble comes on slowly, it is not as dangerous as when sudden in its onset. That is a sudden attack does not allow this preliminary adhesive process to prevent a destructive inflammation from pus or faecal matter. If there are indications of rupture into the general peritoneal cavity, as would be noticed by the gravity of the case, the general peritonitis, pain and prostration, the surgeon should be called at once, for that is the only treatment for a case of that kind. But when you are called and find an extensively indurated mass, with perhaps a little fluctuation in the center, and so oedematous as to retain the imprints of your finger, you may suspect the formation of an abscess, and as soon as you do, it would be well to explore, using for this purpose a pretty good sized needle, because the pus is not always clear and the needle may be obstructed. Then, of course, the treatment is surgical. But there are many of these cases which terminate in resolution even after considerable thickening has taken place.

Treatment.—As far as the treatment of these cases is concerned, the large intestine should be evacuated by an enema as soon as possible. Great care should be taken in giving an enema. The ordinary fountain syringe has force enough for this purpose. I object to forcing, because you are liable to do harm. Neither do I allow the syringe to be carried up too far, or used more than once a day. Sometimes the patient will have to be held or placed on the left side. After you know that the large intestine is empty, let it alone. I have seen three or four weeks required to carry down matter lodged at this point. *Never give a cathartic to these patients.* I usually poultice for a considerable time. The general impression is, that a poultice will hasten suppuration. It will not unless suppuration is going to occur anyhow. It relieves the inflammation in one way or the other, and should be kept up, the poultices being large enough to cover the whole surface of the abdomen. If anything is given, let it be liquid food. If there is little or no fever, animal broths will do. There are cases in which it will be best to feed the patient per rectum. Sometimes the trouble is below and does not involve the ileo-cæcal valve, and then it does not interfere so much.

The differential diagnosis is not difficult, but there are diseases which might be mistaken for it. For instance, a malignant growth. But in that case, you would find that the patient had suffered for a long time, the contour of the growth would be irregular, and not as painful as an inflammatory product would be. You would hardly

think anyone would mistake hernia for this trouble, but if the swelling extended to Poupart's ligament, you might think of it. If it is irreducible, you would notice it, and the history would guide you. Ordinarily, a patient will not call you the first time he detects a hernia.

Typhoid fever, which is an inflammation in this region, has fever, and this enlargement has come on gradually, and there is usually more implication of the rest of the bowel, more gas and more tympanitis. I have had a good deal of trouble in distinguishing between typhilitis and typhoid fever. You would hardly think that, but if you take a case of typhilitis which has existed some time before you are called, with fever and threatened delirium, and tenderness and swelling in that region, it may be some little time before you are satisfied as to the trouble.

Treatment.—The treatment is just about the same as I have given under phlegmonous enteritis. If the pain is intense and there is much peristaltic action, I advise keeping the patient quiet by hypodermic injections of Morphia. The most important thing is to keep the bowel quiet, and hence I object to frequent irritation by injections of water.

Do not be alarmed if you do not get free action of the bowel for some time. This inflamed section cannot act for a long time. Resolution must take place, or the inflammation subside before it can carry the contents along. Three or four weeks may be required to effect this.

Remedies.—The remedies are about the same as for enteritis.

CANCER OF THE INTESTINES.

Cancer of the intestines is common enough to come into the practice of any physician who has been in business for five years. I have been troubled exceedingly in diagnosing this. The chief features of the disease are, as elsewhere, extreme emaciation, and some form of obstruction. I have stated before that four-fifths or nine-tenths of the cases of chronic obstruction in persons above forty are malignant, I mean continuous obstructions. I leave out all of those cases of obstruction from within, caused by impaction, etc. Obstruction from parenchymatous inflammation usually subsides after a little time. Corpulent persons sometimes have thick abdominal walls through which it is almost impossible to detect the mass, but in the majority of cases you can feel it, for the wall has become thinner. The parts of the intestine most liable to cancer are the upper and lower extremi-

ties, the duodenum and rectum, or the sigmoid flexure, which we include with the rectum in this respect. The balance of the large intestine comes next, and then the small. As far as my experience goes, I have seen more cancers of the duodenum than of the sigmoid flexure, and of these two parts together, I have seen perhaps five times as many as of the balance of the intestinal canal. The principal symptoms are emaciation, and some form of obstruction. Of course this obstruction does not take place until the disease is somewhat advanced, and you are rarely called until this is the case. The obstruction, before we have vomiting, produces colic on account of the accumulation of gas above this point. In cancer of the duodenum the symptoms will be about the same as in cancer of the pylorus, but in cancer of the intestine, at any portion of the large intestine, we have colic and accumulation of gas. The patient will notice frequent distension of the abdomen, followed by escape of gas, and relief. Cathartics will help him for a while, and if he is at all intelligent, he learns that certain foods will aggravate the trouble, and perhaps before you have seen him he has learned to live on liquid foods. Whenever you have a case of a patient past middle life, with emaciation and colicky pains, you should proceed at once to examine by palpation as carefully as you can, to discover, if possible, any abnormal growth. This is not always an easy matter, and sometimes you cannot discover it. Cancer of the rectum may be most easily discovered by digital examination, or, in the case of a woman, by the vagina. The characteristics of this growth is that its long diameter corresponds with the long diameter of the intestine. It is nodular in shape, firm and well fixed in position, on account of the infiltration of which I have told you,—the grasping of the surrounding tissues, which is peculiar to this growth—so that it is largely immovable. This is not always true, for you may find cancer at the center of the intestine, where it will be movable for a time, but it is not long before it becomes attached to the surrounding structures. Of course, the general prostration is one of the predisposing causes of death, but ordinarily we have obstruction or a localized peritonitis, or, more rarely, perforation, with suppurative peritonitis as a result.

The rule is that the obstruction increases more and more until nothing can pass this point, or the collection of matter above may cause an inflammation there, with peritonitis from that point. A case of cancer of the rectum may be relieved for a time by introducing a catheter, or some other tube, to allow the gas to escape, but it is only a temporary expedient. Careful dilatation with bougies may help for a time, but in the course of a year, as a rule, from the time it is first

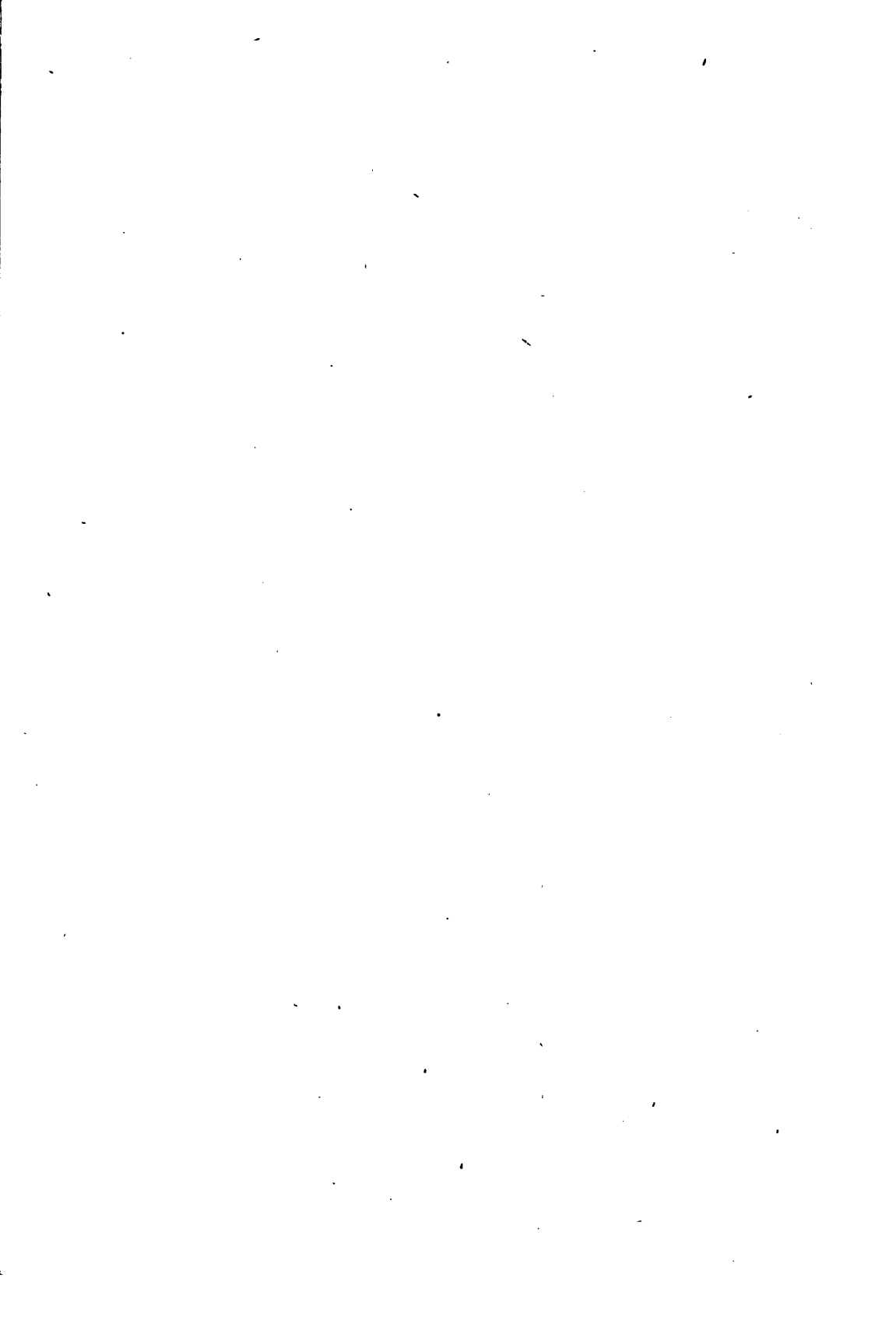
discovered, death takes place in one form or another. You would distinguish this from the obstruction of phlegmonous or parenchymatous enteritis by considering that it is chronic. It comes on slowly, while enteritis is sudden in its onset. It is true, the effects of enteritis may continue, but even then you have a history of a sudden onset, and sudden obstruction, while these are slow in malignant growths.

Prognosis is, of course, unfavorable in these cases. I have very little confidence in operations for internal cancer. As far as my experience goes, it only hastens the fatal termination. There are those who do operate, but for the general practitioner, or one who is not in control of a hospital, so that it makes little difference if death does occur, I would advise letting these alone. Do not attempt extreme measures in these cases for the removal of all the tissues supposed to be involved does not control the disease. Long before this time the lymphatic system has become involved. It is decidedly unpleasant to treat a case of cancer and have it go on to sloughing. It is a terrible ordeal, and you may think you can prevent it by operation, and if your object is to shorten life, go ahead and do it, but I would depend upon palliative treatment. You will first arrange the diet, and dilate the rectum carefully to allow the gas to escape, but you will have to exercise extreme care in doing this or hemorrhage will result. Then you must give something to relieve the pain. In well-advanced cases, the pain is great at times, and if there is much nausea, you will have to depend upon hypodermic injections to relieve the pain. Suppositories relieve the pain, but will hardly do in cancer of the intestine because there is a constant discharge from the intestine. You can subdue the fever, apply poultices and treat as ordinary inflammation, but aside from that there is nothing to be done.

PERITONITIS.

Peritonitis sometimes comes on as a disease. It is rarely idiopathic, but sometimes sudden exposure to cold or wet is followed by a chill, and this inflammation. In the vast majority of cases it is due to a local irritation or some traumatism. By far the greatest number of cases which I have seen have resulted from some inflammation of the uterus or its appendages. Beginning as a metritis or ovaritis, the trouble extends to the serous covering, and thence through a large portion of the peritoneum. I have seen cases come on suddenly and very severely from suppression of the menses. I know of such cases where death occurred in three days from suppurative peritonitis. I am of the opinion that methods used to produce an early abortion,

the use of drugs and instruments, are probably commoner than all of the other causes combined. It comes, too, from extension of inflammation from the liver, spleen, kidneys or intestine, and in connection with certain constitutional diseases, pyæmia, tuberculosis, syphilis or Bright's disease; or it may occur in connection with diphtheria or scarlet fever. In tuberculosis you are liable to have suppuration early, and where it takes place, the peritonitis is much more dangerous. Ordinary simple peritonitis is not nearly as dangerous as when it comes in connection with such general diseases as I have named. In cases of metritis you also have a septic influence from retention of the placenta or absorption of some other contents of the uterus, and in these case suppuration occurs very readily. This disease is sometimes remarkably rapid in its course. I have seen death occur in forty-eight hours and the small intestines glued together by this deposit. So that adhesions occur very early in some of these cases, and if a patient has had a severe attack of peritonitis, he hardly ever fully recovers. Products of inflammation will remain for a life-time and produce an occasional obstruction of the bowel perhaps. The small intestines being fastened together, the passage through them is somewhat obstructed, and is ever afterward liable, in connection with some exciting cause, to produce trouble. The first attack is more dangerous than those following it. You will find some women who have almost annual attacks, and these second or third or fourth attacks do not alarm me as much as the first. The part seems in some way to become used to this kind of inflammation. We find some cases where the visceral layer of the peritoneum becomes so adherent to the parietal layer that it localizes the abscess which results. In other words, we get localized peritonitis and adhesions around it, so that the abscess will open externally without opening into the peritoneal cavity, or it will enter the rectum or vagina or some portion of the intestinal canal. Pain is the chief local characteristic. There is perhaps no disease but pleuritis or meningitis which has such pain. The pain in inflammations of the serous membranes is always severe. The patient attempts to prevent movement of the part, lying on the back with the knees elevated and observing the utmost quiet. It may be more on one side than the other, as from one ovary. It is liable to extend, and it is a favorable symptom if it remains several days without extending. You can detect this by careful palpation, but you will have to be extremely careful to avoid aggravating the case. If it is localized for, say three days, you can hope that it will stop there. But in many cases the whole peritoneal surface seems to have become involved in twenty-four hours. You first have a great chill, followed by fever,



the temperature running as high as in any fever, and sometimes it will later become remitting in character, and occasionally in peritonitis you have profuse perspiration, or you may have chills alternating with fever. These rigors are generally considered as indicative of suppuration. The sweating does not always bring relief to the fever. I have seen cases of puerperal peritonitis covered with perspiration, and yet the temperature did not go down a degree. The prognosis in general peritonitis is always grave. There is a good deal of doubt about recovery. In local peritonitis it is not so serious. There is always an element of danger in these cases. They may become suddenly worse, and until the patient is thoroughly convalescent, you cannot say that he is going to recover.

Treatment.—As far as treatment is concerned, I always use some application externally, most common of which is the slippery elm poultice of which I have spoken. These should be changed frequently and kept up for a considerable time. I have sometimes kept them up for ten days or two weeks. For the primary fever, ordinarily, Aconite is the best remedy. In those cases of septic origin, as I have described, Belladonna is the better remedy, and you will usually find cerebral and other indications for it. A little later Bryonia may be called for. Mercurius in the cases where this profuse sweating occurs without relief. If the intestinal canal becomes involved secondarily, with diarrhoea and dysentery, you have the remedies named under those diseases.

It is very common in child-bed, the gynæcologist meets with it frequently, and it is the great danger after abdominal operations.

CHAPTER V.

DISEASES OF THE LIVER.

THE LIVER.

The largest gland in the body is the Liver, but it is not commonly affected by disease. It is an organ which is capable of enduring a great deal, and there are but few diseases of the liver which you will be expected to treat. The ordinary hyperæmia or congestion is one, gallstones another, and these, with cancer and inflammation, will about cover them. There are some minor affections which occur occasionally, and of which I shall say enough so that you may distinguish one from the other.

GALLSTONES.

Gallstones have remained in the gall-bladder for years without the patient's knowledge. Indeed, most writers claim that in the majority of cases they do not produce trouble, but remain quiescent. This may be on account of the large size of the stone. I have seen a stone in the gall-bladder as large as a hen's egg. One of this size could not be removed by natural methods. I have seen gall-bladders filled with stones. One author reports having found some 7800 stones in the bladder. They were, of course, extremely small. I have seen the common duct packed to the transverse fissure, and enlarged so that it was an inch in diameter. Here there was a history of frequent attacks of pain for twenty years, and death finally came from cancer, resulting from this irritation. I have seen another case in which the patient died from abscess resulting from these stones. Thus a patient may have gallstones for twenty-five years without passing one. In the majority of cases, when the gallstone gets into the gall-duct, it will pass and can be found in the evacuated matter. You cannot be absolutely positive that a patient is suffering from gallstones until you see one. There are other causes producing pain resembling this very closely, but where you have sharp, lancinating pain, coming on at long intervals, and followed by jaundice, you can be pretty certain that the patient is suffering from gallstones, but in



all such cases you should examine the fæces to discover them. They should be placed in water for a while, and then strained through a moderately fine sieve, to find anything of this kind. A gallstone which is formed chiefly of cholesterin, as most of them are, resembles the ordinary fæcal matter so closely that care will be required to detect it. If it is spherical or oval, and has no smooth surfaces, you can be pretty certain that it is the last one or the only one there, but if it is smooth and ground off on the sides, it shows that it has been in apposition with other stones and smoothed off by contact with them, showing that there are probably others yet to come. In the majority of cases you will find that they suffer again from this trouble, and such a patient should be told that the probabilities are that he will have more suffering at a future day. It is difficult to tell when you have cured these cases. These stones are formed from the solid constituents of the bile, just how, it has not been fully decided. Sometimes the nucleus is a little mucus, and around it solid matter collects, increasing its size until a large stone is formed. Occasionally a patient passes "biliary-sand," so-called. These little grains are so small that they pass as soon as formed and do not collect in large masses. They do not lodge at any point long enough to form a stone. The chief ingredient of most stones is cholesterin, but some are formed of carbonate of lime, and still others of a mixture of both. Those formed from carbonate of lime are much harder than the others, and more liable to produce trouble in their passage. The pain produced by the passage of gallstones through the common duct, or the disturbance of the common duct by the presence of gallstones without being passed, is one of the most severe pains that a human being can suffer. It is referred to the right hypochondriac region, or to the border of the right hypochondriac and epigastric regions, and usually extends to the back. It is paroxysmal and griping. The peristaltic action is forcing the stone along. Sometimes the pain is referred to the center of the epigastric region. I would not say that it was not biliary colic in such cases, because I have seen cases where it was. It lasts a variable length of time. Ordinarily it lasts only a few hours before the stone passes. The longer the stone takes to pass, the more jaundice follows it. Vomiting is a common symptom. Constipation has been present and follows it, as a rule. Jaundice follows these attacks almost invariably, and no matter how much I suspected the presence of gallstones, if there were no jaundice following it, I would not diagnose gallstones until I saw the calculus in the evacuated matter. Sometimes it takes days or weeks for the jaundice to disappear, and I have seen cases where it did not disappear until the next attack occurred.

Treatment.—The treatment is to relieve the attack as soon as possible, and as the stomach is usually disturbed, I usually prefer hypodermic injections. It is entirely useless to give medicine by the mouth when there is considerable gastric disturbance. Ordinarily the hypodermic injection of a fourth-grain of Morphia will relieve the patient for perhaps three hours. I would not repeat it in less than three hours, and would probably lessen the dose then. Sometimes it is to be given for several days until the stone has passed. You will understand that the pain may stop and the stone remain in the bladder. By keeping quiet, the peristalsis may be stopped and the pain discontinued. It is difficult to dilate the duct until large enough to pass these stones. It has to be gradually distended until this occurs. The lowest extremity is the most difficult point of distension; frequently it does not allow the calculus to pass, and may keep it there for years even. Inflammation may occur there in consequence of its presence, which will make its exit more difficult still. You can apply a poultice of slippery elm, or some other warm application. There will be some fever, as a rule, for which Aconite will be the remedy. I have considerable confidence in the use of China as a preventive of the formation of gall stones. I have used it considerably. Following Aconite, if there are chills or irregular intermitting fever, China would certainly be well indicated. In some cases with a tendency to perspiration, Mercurius may be indicated. This will frequently aid in the formation of bile, and the liver will return to its normal condition. For this jaundice, which is frequently obstinate, I have found Leptandrin to be effectual. I give small doses of the 2x every hour until relieved. Sometimes there are intestinal disturbances which call for Podophyllum. I have used it in a little different way in these cases. Where the constipation is obstinate, I give a cathartic dose, a quarter-grain, securing a good, free bowel-movement daily, and repeating the dose, if necessary, to secure it. I have used Olive oil in the same way in some cases, and this is quite a popular treatment. It is given upon an empty stomach in sufficient quantity to secure a good bowel-movement, and then laid aside. Sometimes large quantities have been taken, (two to eight ounces) but ordinarily one ounce will be sufficient.

This is about as much as can be done for gallstones, except surgically. In the vast majority of cases operation is not to be thought of, because they are curable with remedies.



JAUNDICE.

It is by this symptom, and it is only a symptom, that we detect many of the diseases of the liver. Jaundice is a condition in which the coloring matter of the bile is disseminated through the system, making itself manifest by the yellow appearance of the eyes and skin; it is found in some of the excretions, particularly the urine, a large amount of it being carried off in that way. There is no difference among authorities as to the cause of jaundice, namely, obstruction. They are agreed that any obstruction to the passage of bile from the liver, or its entrance into the liver, will produce re-absorption of the coloring matter into the blood, and this may be the sole cause of jaundice, as is claimed by some authorities. They claim that when the condition is not apparent, there is less obstruction. Others claim, and it was claimed more formerly than it is now, that jaundice can be produced without bile being formed. A few authorities claim that there are certain conditions of the blood in which the red blood corpuscles predominate, rather an excess of coloring matter, that the blood is too liquid to readily pass from the liver, thus producing obstruction. There is a condition simulating jaundice which arises in some malignant diseases, such as yellow fever, doubtless due to changes in the blood itself—not the jaundice which we usually refer to, but a yellowness of the skin, which is due to changes in the blood, where there is a breaking down of the red corpuscles and dissemination of hæmatin through the system. But the great majority of cases are caused by obstruction. It may be gallstones, or pressure upon the gall-duct, as from a cancer above, or it may be and commonly is due to catarrhal inflammation of the bile-duct, which clogs it and obstructs the outlet, resulting from exposure to cold. We frequently find it in children, lasting perhaps only for a week. In many of the diseases of the liver, and more serious diseases as well, no jaundice appears or it is present only during the advanced state. It is found only where we get pressure and obstruction of the bile-ducts. In many cases of enlarged liver or fatty liver, there is no jaundice at all. When you notice a jaundiced condition of the skin, you are of course to suspect some trouble of the liver, and nine times out of ten it will be obstruction. Great pain, followed by jaundice, will indicate gallstones. If it comes on suddenly after taking cold, it will probably be catarrhal.

CIRRHOSIS OF THE LIVER.

There is a disease which will come into your practice before many years which is known as Cirrhosis, Hobnail or Gin-drinker's liver. It is generally believed to be the result of the excessive use of alcohol in some form. It has been found that after taking alcohol a large proportion of it is found in the liver. Doubtless it is from the direct irritation of this alcohol in the liver that we get the inflammation of the parenchyma which produces this disease. Every organ in the body is similar to some extent to the others. You have a framework consisting of fibrous or some similar tissue, and this holds the lobules, glands or air-cells, whatever the case may be. The framework holds the proper structure of the organ. Now it is this framework which becomes diseased in cirrhosis,—hypertrophied and then contracted. There is an old idea which is now concurred in by perhaps the majority of authors, that there was primarily a hypertrophic stage of cirrhosis, followed by a secondary stage of contraction. Many later writers think that in many cases there never was hypertrophy—that it was contraction from the beginning, although they do not deny that in some cases this is not true. The older writers will tell you that you are to diagnose this disease by the history of enlargement prior to the contraction.

This is a chronic disease, the liver being probably never cured or restored to normal condition; the life of the patient may not apparently be shortened thereby. It is considered serious enough to make the prognosis at least doubtful or grave, for there are complications which may arise which render it fatal in a short time. The history, of course, will guide you to a large extent. There are a few cases of cirrhosis which are not addicted to the use of stimulants, but the vast majority are among those who have used stimulants to excess. I can remember only one case in which there was not a history of indulgence in liquor, and I am not positive about the diagnosis there. In other words, this is a disease about which there is doubt, and you cannot always be positive that it is cirrhosis. Then there is emaciation to some extent, with gastric disturbances and occasionally vomiting. There is not a great deal of pain, but the prostration which we usually find in hepatic disease is present. If you have a hypertrophic stage, you may find the liver enlarged. This may not be sufficient to be detected very readily by palpation and percussion, but in the stage of contraction you can detect the liver drawn away up below the ribs, perhaps one-half its normal size, the left lobe apparently entirely gone. When the liver is reduced that much, you have other



prominent symptoms. There is enlargement of the veins upon the abdomen, and general ascites without any other dropsical effusion, as a rule. This comes from obstruction to the portal vein. It may keep on, getting better and worse, and lasting for many months or years. Another common symptom of this disease is hemorrhage from some portion of the intestinal canal. Hemorrhoids, if present, will bleed frequently and persistently. Sometimes there is hemorrhage from the stomach or upper portion of the bowel. There may be epistaxis which is due to this obstruction, or hyperæmia with consequent hemorrhage. In advanced cases there may be hemorrhage that is even fatal. The brain may become involved in some of these cases. In rare cases of serious jaundice, the brain becomes affected from the absorption of poisons which should have been eliminated by the liver. The liver fails to perform its functions, or there is pressure upon its ducts. This disease is slow in its progress and you should be very careful about giving an unfavorable prognosis, because the patient may live for years, and again he may meet with serious hemorrhage, or something else which would rapidly prove fatal.

Treatment.—The treatment is largely beyond the reach of therapeutics. First, remove the exciting cause, the use of alcohol, and then treat the symptoms or complications as they arise. As far as the disease itself is concerned, I question whether medicine will have any particular effect upon it. Look after the diet. See that the digestive apparatus is not crowded. Avoid overwork or cold, or anything that would produce intestinal disease. These cases are liable to dysentery, catarrhal enteritis, and other derangements of that kind.

CANCER OF THE LIVER.

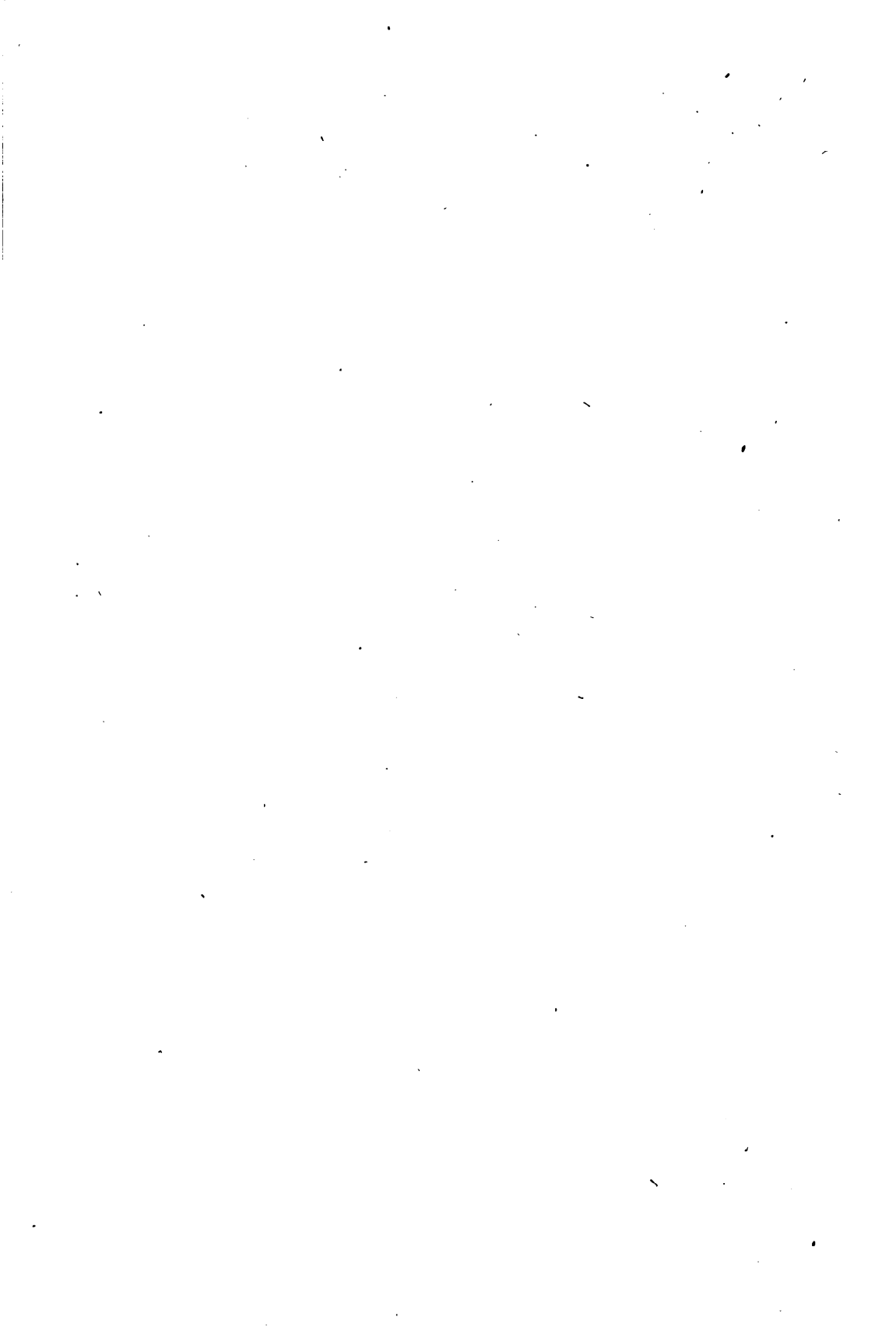
Cancer of the liver occurs generally as a secondary affection. From similar affection in some other part, we frequently get secondary deposits in the liver. I have seen numerous cases of cancer of pancreas, liver and spleen, or where it originated in the intestinal canal and then appeared in the liver. So that if you have a disease of the liver which is entirely independent of any other trouble, it is doubtful about its being a cancer. In cancer of the liver, we generally have a history of hereditary tendency, rapid emaciation, enlarged liver, with nodulated margins—not the surface of cirrhosis, but larger nodules—larger than your knuckles, potato-shaped, something like the appearance of cancer elsewhere, and when you have found cancer which has progressed this far, the fatal termination is not far distant. Jaundice is usually present in these cases; pain is not severe, and in

fact is rare unless the coverings are involved. In inflammations, deep-seated pain occurs, but if the covering is involved, we have Peritonitis.

Treatment.—The treatment is about the same as for cancer elsewhere.

ABSCESS OF THE LIVER.

Abscess of the liver is much more common than you would expect. It is not often the result of traumatic causes. In other words, injury of the liver rarely produces abscess. The most frequent cause is the deposit of some irritating substance, generally the result of Pyæmia or some poison of a similar nature. Infectious matter is transferred from some other part, and there sets up an inflammation terminating in abscess. Sometimes these abscesses are overlooked. A great many cases of supposed tuberculosis are abscesses of the liver, discharging through the lungs. The liver reproduces itself better than any other organ, so that by a process of hypertrophy and hyperplasia it is renewed considerably after being destroyed by abscess or anything else. This disease was formerly much more fatal than now. In the first place, because it was frequently undetected, and secondly, because the aspirator was unknown. There is very little danger from exploring the cavity of the liver and withdrawing some of the fluid and if it is an abscess, you have an urgent demand for the removal of the pus. This can be done by the aspirator, or, more thoroughly by the knife, opening up the cavity, stitching the liver to the parietes, and thoroughly cleaning it. The aspirator has been most used, and while it is not quite as positive in its results, it may in most cases be the safer way. The first thing to determine is whether you have an abscess, and how near the surface it lies. I would not attempt any other method of treatment than those mentioned. There is too much danger of rupture into the peritoneal cavity, or death by absorption and pyæmia, and even if it ruptures through the lung, it is a question whether the patient can endure all this coughing and completely evacuate it. If you have all the symptoms—irregular fever, chills and rigors, with sweating, which is sometimes profuse and may be intermingled, you can then suspect suppuration. We have remedies, such as Mercurius and Hepar Sulphur, which no doubt have an influence upon the abscess, and can be prescribed after evacuation, and before suppuration has taken place to any extent, but the use of these remedies can only be secondary.



HYDATID OF THE LIVER.

There is a kind of cyst attacking the liver which is exceedingly uncommon in this country. It is undoubtedly the result of association with the lower animals, especially dogs,—it is the larva of the tape-worm. It is reported to be a very common disease in Iceland,—Hydatid of the liver. It comes from taking these eggs into the system. It may come directly from the dogs, or from the flesh of animals thus affected, but generally from intimate association with these animals. In cold countries, where dogs are such a necessity, people are obliged to live huddled up in a small space, so that the association is quite intimate, and they haven't the means, and probably not the disposition to be careful. It is so rare that I hardly need mention it, but when present, it consists of sacs which form in the liver, especially the right lobe. These become enlarged, are somewhat slow in their progress, and when they are of considerable size, palpation will detect the fluid contents. There may be numerous sacs or there may be only one.

Treatment.—The mode of treatment is by evacuation of the contents. It will be a question in your mind as to whether these contents are pus or some other fluid, like serum. Repeated aspirations will effect a cure. I hardly think anyone should open the abdomen to treat it, but in cases of suppuration it would perhaps be the best treatment.

FATTY LIVER—WAXY LIVER.

There are some other diseases of the liver which you may be called upon to treat occasionally. It seems useless to spend an hour speaking of a disease which may be discovered once in say thirty-five thousand cases. Take for instance, a case of fatty liver. I have not seen more than two or three cases in thirty years. It comes with enlargement and may result from overfeeding. It is scarcely a diseased condition. The fat taken into the system is collected at the liver, or an excess of fat is formed. This is not the kind of fatty liver usually referred to. In such cases you have a fatty degeneration all over. In cases of cancer, tuberculosis, or phosphorous poisoning, we get an accumulation of fat in the liver which enlarges it. Jaundice is not a common symptom; there is no ascites, no enlargement of veins of the abdomen, and not until the last stages of the disease do we find any ascites. The liver is so enlarged that it may extend to the umbilicus or the crest of the ilium in some cases. It is not hard, but œdematous. If near enough to the surface and

the abdominal walls are thin enough it is easy to detect it. It leaves the impression of your finger for a while. This is a chronic disease. It differs from hyperæmia or ordinary enlargement in this, that the spleen is not simultaneously enlarged. In the waxy liver which comes with some constitutional taint, as syphilis, tuberculosis, cancer, pyæmia, Brights' disease, etc., there is an enormous enlargement, which is a little firmer and harder than fatty liver, and sooner fatal, but it is an exceedingly rare disease. I have not seen more than two cases of which I was positive. When you find this very large liver, smooth, and not nodulated, it is either fatty or waxy, and it is immaterial to the patient as regards prognosis. Both are due to some constitutional taint, except in phosphorous poisoning, and then other symptoms would indicate it.

HYPERÆMIA OF THE LIVER.

There is another kind of liver trouble which we meet with often, and which occurs in connection with malarial poisoning,—the chronic hyperæmia or hypertrophy of the liver,—malarial hypertrophy of the liver and spleen. I have told you in the clinics that if malarial fever were long continued, you always had trouble of this sort, which changes them so that they perform their functions imperfectly. We hardly know the use of the spleen, except that it has some function in connection with the blood. Doubtless catarrhal inflammation of its ducts is of frequent occurrence. A malarial fever is usually remitting or intermitting, so that there is a variation of from one to four degrees in twenty-four hours. Now, with this variation in the temperature, you find corresponding changes in the circulation. Supposing a man has a chill every day; during the chill, the blood leaves the extremities, the hands and feet are cold,—he has just as much blood as before, but it is carried to the liver and spleen. The liver being crowded with blood, by its elasticity, it becomes enlarged, and then when the equilibrium is restored, it does not entirely return to its normal size, and this is true every day, until finally there is a more or less permanent enlargement, and in every case of malarial origin, we expect upon examination to find a corresponding enlargement of the spleen. I have seen the spleen reach down to the crest of the ilium,—perhaps three times as large as the liver ordinarily is. Of course, the liver is not enlarged in the same proportion, for the abdomen could not hold them, but when you have enlargement of both organs, the history will usually indicate a malarial origin. It is not a dangerous affection. It usually subsides as the other symptoms pass away. A removal of the cause, change from the climate which

brings it about, will perhaps effect a cure. In other cases, remedies may be called for, such as are commonly used in malarial cachexia. It is sometimes difficult to distinguish between this and cirrhosis. Cirrhosis of the liver may be associated with cirrhosis of the spleen, and often cirrhosis of the kidney, but ordinarily, a simultaneous enlargement of the liver and spleen would lead us to think of malarial poisoning.

YELLOW ATROPHY OF THE LIVER.

There is a kind of acute yellow atrophy of the liver which occurs rarely, and is more common in women than men, and especially pregnant women. It is a serious affection and probably due to some constitutional cause. It is rapid in its course, and quite fatal. I only desire to mention it.

There are several other organs of the abdomen, the study of whose diseases will be much simplified if you will remember that all glands having ducts have many characteristics in common—they are similar in structure. The duct is lined with a certain membrane, then these ducts are divided up into smaller ducts, and finally there is the substance of the gland proper, which is maintained in position by a fibrous framework. The inflammations attacking these glands may be confined to the lining only, or may extend to the deeper tissues, the parenchyma of the gland, or may involve chiefly the fibrous structure and framework, as in cirrhosis. So that if you have studied diseases of the liver, you have studied diseases of the pancreas. Diseases of the the kidneys are but little different. In the lungs you have about the same arrangement and the same diseases.

THE PANCREAS.

The pancreas is situated posterior to the stomach, and so covered up that percussion will reveal but little. Indeed the objective symptoms are absent. It is subject to the inflammations of which I have spoken. Like the salivary glands, which it closely resembles, it is not very liable to suppurate. Consequently, abscess is exceedingly rare. There may be cirrhosis, but it is generally in common with cirrhosis elsewhere. Independent cancer of the pancreas is a rare affection. It may have originated in the pancreas, but before we are aware of its presence, other parts are implicated. Cancer of the head must involve the duodenum surrounding it, and consequently duodenitis is a common symptom of pancreatic affections. The chief symptom of duodenitis, aside from the pain, is the obstruction, causing vomiting. Frequent attacks of inflammation of the duodenum

thicken the wall and lessen the calibre of the intestine at this point. I have seen cases where the opening was only three-eighths of an inch in diameter. It takes but little swelling to close up such an opening, and then you have all of the symptoms of obstruction, persistent vomiting, cold surfaces, etc. If you have rapid emaciation, and are unable to find any cause for it, in addition to which you have occasional attacks of persistent vomiting, you may suspect cancer of the pancreas. I seriously question whether anyone can positively diagnose this disease until it is too far advanced to be of any value, and in most cases it will be impossible before death.

THE SPLEEN.

The spleen is one of the ductless glands, but resembles in other respects the liver and pancreas. It is very elastic and capable of much change. It can become enlarged without becoming diseased, more than any other organ. We find this hypertrophy in malarial fever. I have explained how, in a chill, there is congestion of some internal parts, and the spleen being supplied with many blood vessels, and its supply varying considerably naturally, we find that in intermitting fever it becomes enlarged. The longer standing the disease, the greater the enlargement. It sometimes becomes permanently enlarged, but in many cases it returns to something near its normal shape. Abscess of the spleen is exceedingly uncommon. It may come from traumatic causes, or may result from septic matter being carried to it from some other portion of the body. Cancer of the spleen may occur in connection with other organs, such as the liver, with which it is in close sympathy. We find conditions in one affecting the other, so that there is a relationship which perhaps has not been thoroughly explained. And in the intermitting fevers we find both enlarged. In cirrhosis both are affected alike, but other organs may be affected as well. Cancer of the spleen, when present, produces considerable enlargement. The gland being so easily enlarged, it is liable to grow when affected by any disease. So that enlargement of the spleen is common, except in cirrhosis, when we find contraction. But the cancer is as cancer elsewhere. There is the emaciation, prostration, and general cachectic appearance of that disease. If you practice percussing over the spleen occasionally for a while, you will be able to detect the normal dullness, and so determine when the gland has become enlarged. The patient should sit or stand, and then change the position and lie on the opposite side, when it will be carried away toward the opposite wall, and you will not find so much dullness as when the patient was sitting.

CHAPTER VI.

RHEUMATISM.

This is a migratory, inflammatory disease, affecting the muscular and fibrous tissues, and connected with some general morbid state. It is a very common disease and not ordinarily fatal except on account of the complications which it produces. It effects young more than old people. After the age of forty the tendency to it diminishes. In the great majority of cases occurring after that age, we find that there have been previous attacks during childhood or middle age.

Chief among predisposing causes is an hereditary tendency. It is one of the diseases that cling to a family, and we frequently find every member of a family suffering from it at some period. The most frequent exciting cause is exposure to cold, especially to a cold damp atmosphere, and getting the feet wet. New snow is productive of much rheumatism. Going out with wet feet unprotected, the person becomes damp and chilled, and that night or the next day there is an attack of rheumatism. It comes on, too, during the course of some other diseases, such as scarlet fever, in which it is a common complication. Occasionally we find it occurring during the course of the other eruptive fevers, such as small pox, measles, etc., also in many general and systemic diseases, such as diphtheria, puerperal fever, pyemia, or septicemia. It may also occur in connection with gonorrhœa, producing rather a severe type of rheumatism. One attack predisposes to another, but whether this is due to the fact that it has not been cured, or whether the predisposition to it is increased, is not always easy to tell. In many instances the joint involved is not the same as the one before, and the cure is imperfect. The nerve tissue is also sometimes involved in this disease, sometimes involving a large trunk, like the sciatic, or a smaller one. Sciatic rheumatism is a common, but serious and obstinate form. This disease presents many varieties. The acute or inflammatory variety is the most serious and more liable to be accompanied by dangerous complications, such as cardiac inflammation. This sometimes degenerates into chronic rheumatism; sometimes it never assumes an acute form.

The kind of rheumatism which you will be most called upon to treat and requiring the most prompt attention, is the acute articular rheumatism. It generally comes on suddenly; most often in the young, after exposure to cold, and the first thing noticed will be a chill of greater or less severity, followed by a fever. The fever of rheumatism is remarkably high. As high a temperature appears in this disease as in almost any other, and sometimes the patient apparently dies from the extreme temperature. Cases are recorded of recovery where the temperature has been as high as 108 deg., and I have frequently seen the temperature as high as 105 deg., while 104 deg. is common. There is a peculiarity about this fever which you see in only a few others—perspiration does not relieve the fever, and although the patient may be covered with a profuse perspiration, there is no diminution of temperature. Sometimes these spells of perspiration occur at several periods of twenty-four hours. For an hour or two the patient will perspire profusely, and then the skin becomes dry. In connection with the fever, pain is the next important symptom. In the articular variety, it will be in the joints. One, two or more joints may be involved, and nearly every joint will be involved before the fever is over. Ordinarily, it begins in one extremity, perhaps commencing in the knee of one side, then extending to the ankle and hip, and then passing over to the opposite side. Perhaps an injury to the joint may produce it, and then it will become general. With this pain we have swelling and extreme tenderness. I stated that this disease was migratory. It is frequently the case that one joint to-day will be extremely painful and tender, while another joint is entirely free, but to-morrow the reverse will be the case. But, of course, if there is much swelling, you could not expect that it would all leave in twenty-four hours. This migratory character is common to the milder form of the disease, and to some extent you will find it in all cases of rheumatism. If the right knee is the worst point to-day, the left shoulder will perhaps be the worst point to-morrow. The fever is of varied duration, being unlike the continued fevers in this respect. Rheumatic fever may continue for a considerable time, frequently many weeks, before we have entire freedom from it, and convalescence may be established at any time during this period. The favorable indications would be a lowering of temperature, lessened pulse, and more nearly normal perspiration. This profuse perspiration diminishes, and although the skin is yet moist, it is not drenched with perspiration, as it was before. Occasionally, the attack seems to diminish, and we have hopes of immediate convalescence, when there occurs another chill, or something

approaching it, and a renewal of the fever. A relapse is common in the course of this disease, even without apparent cause. Movements of the articulations are exceedingly painful, and the patient makes every effort to keep the joint at rest. It sometimes attacks the intercostal muscles, so that the breathing is very superficial in consequence, and deep respiration produces pain.

Thirst is common, and it is greatest when we have this profuse perspiration. Cases of high fever may be accompanied by delirium, especially in young children, and occasionally meningitis occurs in connection with this disease, though this is not common. There are a few instances in which the fever increases in spite of everything, and the excessive heat produces death.

The death rate of rheumatism is not high,—perhaps not more than three per cent., but the complications which are most frequent are the cardiac inflammations, so called,—endocarditis and pericarditis. It is these complications which make the disease more grave than it would otherwise be, and which leave the patient frequently in impaired health for the balance of life. Some claim that in acute articular rheumatism, fully fifty per cent. of the cases are accompanied by cardiac trouble, but I think that estimate is too high. Perhaps ten to twenty per cent. of the cases are accompanied by some inflammation of the membranes of the heart, although it may be scarcely visible. The symptoms I will give you later, but you are always to carefully examine the pulse of the patient at every visit, and if it is at all suspicious or changed in character from day to day, examine the heart carefully.

These cases should be watched for a considerable time after convalescence is established. They should not be dismissed early, because complications occur later. Endocarditis may occur after apparent convalescence. The patient is not free from anything of this sort until he has been well for some time. Of course, in these cases where there is profuse perspiration, the urine is scanty and heavily loaded, the specific gravity is high, and we sometimes find derangements of the urinary organs because of the excessive amounts of solids carried off in proportion to the amount of fluid. The changes taking place in many cases are considerable, but not in the mild forms. In the mild cases there is simply hyperæmia with very little swelling. At some point about the joint there will be sensitiveness to pressure. If in the knee, it may be at the condyles of the femur, or at the tuberosity of the tibia, or, if at the elbow, you may find any of the prominences tender and sensitive to touch. In the more severe cases, the synovial membrane is thickened, the collection

of synovia increases so that it is puffed out, the synovial sac of the knee will be puffed out beyond the patella, showing that there is an excessive amount of fluid present. The fluid becomes changed in character, if the case is of long standing, becoming opaque or a little purulent. In some diseases, as diphtheria, scarlet fever, or gonorrhœa, the fluid is more liable to become purulent than ordinarily. This has a bearing upon the treatment, for if the joint is filled with pus it should be evacuated, but if it is the ordinary synovial fluid, this may not be necessary. The history of the case, intensity of the inflammation, suddenness of the attack, and the fact that one joint was more affected than the others would tend to show that it was purulent. It is exceedingly rare to find pus in more than one cavity. The knee is the commonest point of formation. In regard to surgical treatment, I may simply state here that I have never found occasion to open the articulation. I have depended upon the aspirator to remove this purulent fluid. I have sometimes aspirated as much as six, eight or a dozen times in a week. There is no particular danger from aspiration. If the synovial sac is packed full of purulent fluid, it will certainly do damage unless soon removed. Sometimes it goes on until the cartilage becomes affected. This is not common but occurs in old cases. The cartilages become dry and cracked down to the bone, with perpendicular fissures which take up the cartilage and make it useless. In a considerable number of cases there is a deposit about the joint extending to the adjacent tissues, so that to some extent the joint is immovable and motion is impaired for a long time. Any sudden effort to develop this motion will sometimes bring back the acute disease, and hence it must be handled with care. In some cases, particularly in old people, we find calcareous deposits about the articulations, the ends of the bones will be enlarged, and in such cases we ordinarily find the arteries also in a state of calcareous degeneration. You can do a little to alleviate the pain, but ordinarily it is incurable. So the prognosis in such cases, where there is much deposit about the joint, is not very favorable. This is true in gouty subjects, and they suffer ordinarily for the balance of their life from occasional attacks. In rheumatism which is uncomplicated with any systemic poisoning, suppuration is rare. It seems almost incredible that a person can suffer for weeks and months from that amount of inflammation without having suppuration take place. Pyemia has a history which points directly to the character of the trouble, and scarlet fever or puerperal fever, likewise. The first attack of rheumatism is usually the most dangerous, and subsequent attacks are ordinarily milder,



This is particularly the case if it comes on quite early. Girls are more liable to the complications than boys, and it is probable that they are more liable to the disease altogether. At any rate, this is my experience. This would not be the case, however, after the patient becomes exposed to the weather,—then the majority of cases exist in the males.

Treatment.—The treatment consists of reducing the fever as early as possible.

Aconite is the chief remedy in the first stage and may be used internally and locally, the 3x internally, and ten drops of the tincture in a gill of water, as warm as bearable, compresses applied about the joint, and frequently renewed. This should be used only during the first stage. Subsequently I would use no moist applications, for the least chilliness is liable to produce a return of the trouble. After the primary symptoms have subsided, I wrap the articulations up in flannel or something that will keep the parts warm. The utmost rest must be secured for each articulation involved. Do not allow the joint to be placed in an unnatural position, for it is liable to become fixed. Do not flex a leg more than 45 degs., for if kept at a right angle with the thigh for three or four weeks, it will be exceedingly difficult to straighten the limb, even if the case was mild. Straightening may be next to impossible after a patient has recovered. Place the forearm flexed with the thumb upward, or laid on a pillow somewhere near that position. The arm can be placed at right angles more easily than the leg, and it is much more easily straightened. Vary the position of the limb. If it is placed at an angle of 40 degs. to-day, have it straight to-morrow. Patients are very much inclined to flex the leg too much, and unless you are careful, they will assume that position, especially young people. They curl up, and it is exceedingly difficult to handle these cases. They may have bed-sores from inability to lie in more than one or two positions.

Bryonia is a remedy which follows Aconite, and is of the utmost value in this disease. Its indications are pain, aggravated by motion, fever has subsided, and Aconite stage is passed, restlessness and nervousness are decreased, but the patient is irritable and hates to be disturbed, has some sweating symptoms, a cough, such as appears in intercostal rheumatism. If you get improvement from this remedy, do not change it. I sometimes gives it for weeks, gradually raising the potency and lengthening the intervals.

Rhus Tox. is a remedy resembling Bryonia in that it affects the same tissues, but it differs somewhat in its pathogenesis. There is a peculiar nervous condition; patient cannot lie still; pains aggravated

at night and while at rest, notwithstanding there are pains which are developed by the first attempt at movement; hates to move, although he feels that he must, but he attempts, and after he has made the change of position he is better; in chronic rheumatism gets up slowly and carefully. After moving about and walking around the room somewhat, the pain subsides and he is reasonably comfortable for the rest of the day, but at night he is worried on account of these pains.

Mercurius.—For the profuse perspiration without any relief, *Mercurius* is the best remedy. The temperature is not reduced by perspiration. I regard *Merc. Sol.*, about 3x trituration, as the best form of this remedy. I would not give the 3x in dilution, but in small powders of one or two grains, say every two hours until relieved. If the patient's mouth is exceedingly dry, moisten the powder and place it upon his tongue, following it with water. I do not believe it is best to give low triturations of the mineral remedies in water, for I am inclined to believe that they are imperfectly and unevenly dissolved.

Sulphur is a valuable remedy in some chronic cases, and follows *Bryonia* well.

Hepar Sulphur is a remedy which I have given with much benefit in pyemic or septic rheumatism.

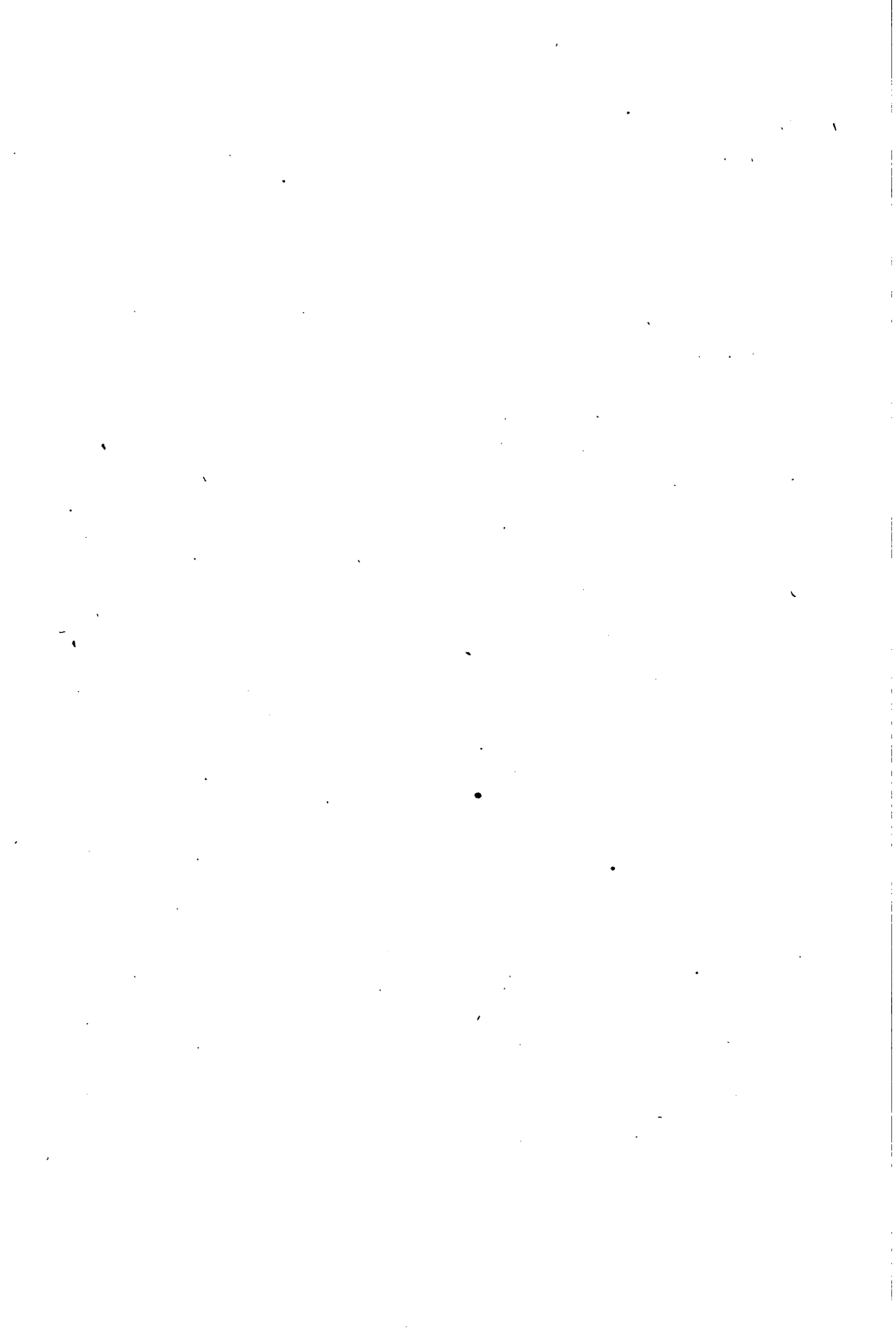
Arsenicum, too, is of value in those cases where we have some systemic poisoning, with the *Arsenicum* fever, intermitting, prostration, etc.

Apis Mel. is of more importance than is generally regarded. It is indicated where there is some inflammation with the œdema at points remote from the joint; scanty secretions from the kidneys, or inflammatory conditions there. It belongs more to the subacute than to the primary stage. This remedy also has a tendency to dropsical accumulations.

Phytolacca would be valuable where the rheumatism had been produced by excessive doses of *Mercurius*. It is one of the vegetable remedies which counteract the results of *Mercurius*. The symptoms, then, must correspond to those of *Mercurius*, and so *Phytolacca* would be indicated in cases where the symptoms were similar to those of *Mercurius*. This remedy is not as commonly used as it was some years ago, because poisoning by *Mercurius* or *Calomel* is not now so common.

The temperature of the room must be a little higher than in the ordinary fevers, and should be about 70 degrees. The cases cannot endure anything like a cool atmosphere, and the patient is very susceptible to any draughts. We have to be careful about this. On the





other hand, do not let them have an exceedingly high temperature. Some refuse to have the room any cooler than 80 degs., but this is detrimental in many ways. Of course, lower the temperature from this point gradually. 65 degs. is too cold for these cases. The patient should be protected by woolen clothing, not only while in bed, but as soon as he gets up. Many cases are produced by changing heavy underclothing for light. In cases of lumbago, or localized rheumatism of long standing, I always advise wearing some extra thickness of flannel upon the affected part. Sometimes in muscular rheumatism between the scapulæ, the back of a chest protector will do very well. A large piece of chamois upon the flannel, and directly over the affected part is often valuable. The covering of the feet should be looked after at all times. One cannot go with cold feet with impunity. Dampness is especially to be avoided. Any sudden violent muscular effort must be prohibited, and exercise of any kind, must be commenced carefully and indulged in moderately.

CHAPTER VII.

DISEASES OF THE CIRCULATORY SYSTEM.

ANGINA PECTORIS.

This is a condition which we meet occasionally. I presume I treat a half a dozen cases in a year, cases of angina pectoris, which are brought about by disease of the heart wall, or of the arteries which control it. Calcareous disease of the coronary arteries is the chief cause of angina pectoris. Just how impairment of the function of the muscles of the heart produces such a neurosis as that I cannot tell, but it is a fact that a person who has serious disease of the heart, muscle-atrophy or degeneration due to impairment of nutrition, imperfect circulation in the coronary arteries, is subject to such attacks. Such a person—and it is generally a man past middle age—has had some indication of it before. You would probably be called at the time of attack and possibly you would not reach there until it was over. He would tell you that he had the most intense pain in the anterior portion of the chest, and the pain had extended down the left arm possibly. Accompanying this pain there was a death-like feeling. If you were there during the attack, you would find his face pale and the pulse irregular and intermitting. You place your stethoscope over the chest and possibly you may find a murmur, for it is not unusual for this to be combined with some valvular impairment. We may find that it is calcareous disease of the segments of the valves which produces the murmur. This attack soon passes away and the man is reasonably well again. If you are not called until after he has recovered from the effect of it, it is a pretty difficult thing to decide what the trouble was. You have to depend upon his statement, or that of some other member of the family. I have in mind the case of a particular friend of mine, a man with whom I had been associated for twenty-five years. I was called to see him after such an attack. He had recovered before I reached there, but the action of the heart was irregular and the pulse intermitting. There was no marked hypertrophy and no murmur. He stated that up to that time he had been reasonably well. This was about election time and he was engaged in politics somewhat. He had taken stimulants pretty regularly throughout his life. He had

been out the evening before and had eaten quite heartily and taken considerable stimulant, and although he was not intoxicated it was late when he retired, and this attack came on probably three or four hours after retiring. He came to my office afterwards a few times and soon felt as well as usual, and went on about the same. About a month or two later, certainly not over three months, a message came for me at about five o'clock in the morning, and when I reached him he was dead. That was all the sickness that man had. He died of angina pectoris, which was produced by this disease. They refused to allow me a post-mortem and I could not demonstrate positively. I have a case under my treatment now. This man has extreme regurgitation and hypertrophy, and has had during the past two years possibly three or four attacks of angina pectoris. In one he came very near dying, but he has recovered so that he is able to go about his business. He understands the situation perfectly, and says he knows what to expect.

True angina pectoris is a serious matter, and the most important matter in connection with it, aside from being able to make your proper prognosis, is to distinguish it from the false angina, which is exceedingly common. False angina pectoris occurs in nervous individuals, in women more than men. There is some pain, not the same effect upon the circulation that we find in true angina. We have pain in the chest extending to the left arm, but the circulation is not so much impaired. The pulse is irregular and the rhythm is imperfect. It is rapid and easily disturbed. There is not the extreme palor that we find in true angina, and yet it is somewhat difficult to distinguish between one and the other. A lady about 45 had frequent attacks of this kind. I was not able to see her during an attack until I had treated her for some little time, but she had this pain extending down the left arm and the pain in the region of the heart, a feeling as though it were held by a strong force. I finally saw her during a paroxysm, and found there was not the oppression of the heart that there would be in true angina. The pulse was not compressed to such an extent, the face was not extremely pale, and she did not appear to be as seriously ill as I expected. I had feared true angina pectoris in her case, but I was then satisfied that it was not. The case was a true picture of cactus, and that was about the only remedy I used. This was quite a number of years ago and she has been in reasonable health since that time. In a person of nervous temperament, subject possibly to attacks of hysteria, or one who is easily excited and the heart's action very much disturbed, it is not unusual to find a pulse of 120. If a case of this kind presented the symptoms

which I have described, it would in all probability be a case of false angina.

The treatment of this disease is considered rather unsatisfactory. It is an incurable affection. The patient feels reasonably well during the interval. He is a man who has been in the habit of doing as he pleases and using stimulants and he really feels as though he could not do without them. It is almost death for such a man to stop the use of stimulants, but it is absolutely necessary, if you are going to produce any improvement, that he reduce the amount. Tobacco is a stimulant that he should avoid. These men use tobacco to excess, and if you are going to benefit them, you must cut that down. My rule is to cut them down to three cigars, perhaps not taking more than one or two doses of their stimulants. To do that requires a great deal of self-denial on the part of the patient, and it is hard for him to practice it.

If the attack is the result of exposure to cold, and if you have, as the first symptom, elevation of temperature, Aconite is the remedy. In cases in which the trouble is due to overstimulation, Nux Vomica is the remedy, and this will do a great deal for these people. Cactus is a remedy which is probably better indicated for the marked symptoms of angina than any other, and I have used it quite extensively. I have not used Digitalis to any great extent, but in the intermitting, irregular pulse, which is moderately full, I have found it of considerable benefit.

In old age, and from causes which act in the same manner, there frequently results a degeneration of the walls of the arteries—calcareous atheromatous disease. This takes place in the inner membrane of the artery. You find first some opaque spots in the lining of the artery, and after that a fatty degeneration. In these spots another degeneration sets in with the formation of calcareous matter, so that there are plates of calcareous matter within the lining of these vessels. These may be located in some limited space, or they may involve a large part of the vessels. Those of the extremities are most liable to be involved. Gradually these extend and come nearer together, until finally the whole vessel becomes almost a tube of calcareous matter, which when cut shows the presence of the salts of lime. In passing the tips of the fingers over a calcareous artery it feels like a whipcord. It rolls under your finger. At the same time the pulse has lost its fullness. Whenever you find anything of that kind in the radials you are liable to have some trouble with the heart. The coats of the arteries and the base of the valves are liable to become affected in this way, so that in case of angina pectoris we search for these conditions

to find the index of the trouble. The circulation depends to a great extent upon the elasticity of the vessels. If the vessel is nothing but a tube of inorganic matter, then the whole current is dependent upon the force from behind. Besides an artery of this kind becomes smaller and the calibre lessened, until finally it takes very little to stop the circulation in this way. We find in some cases the opposite condition of the valves—growths are liable to float in the circulation and become lodged in the vessel—emboli which obstruct the circulation in that part and produce gangrene. Senile gangrene is not an uncommon cause of death, and this is caused by obstruction of the calcareous vessel, the caliber of which has been lessened by something floating in the canal—a growth from one of the aortic valves is carried into the femoral artery and lodging becomes an obstruction to the flow of blood, and the circulation at that point is cut off—so that gangrene is a consequence. So in all cases you search for obstruction of the femoral artery first, because the circulation is kept up to a considerable extent by these vessels. The coronary arteries which are affected in this way become gradually contracted, so that the nutrition of the heart is much impaired. The coronary arteries which surround the heart lie in a groove between the auricle and ventricle. The current of blood forced into these arteries has to make that circuit, which is semi-circular. It could be carried much better if it were a straight line, so that in forcing the blood onward it comes in contact with the lateral wall of the coronary artery, which in these cases has lost its elasticity and cannot make this circuit. This has recently come to my mind, and I fully realize that it is difficult for the force which propels the blood onward to carry it where the artery is crowded as that is. The arteries of the extremities, unless the limb is flexed, are in a straight line and the law of gravitation will aid the current of blood, but where the coronary artery has become almost obliterated it is exceedingly difficult to force the blood onward.

PERICARDITIS.

Pericarditis is one of the most common complications of rheumatism, although not so common as endocarditis. The pericardium, as you know, is a fibro-serous membrane, whose internal layer is serous and secretes a mild fluid which keeps the surface constantly moist. It prevents any of the discomforts of friction. During the action of the heart, the visceral layer comes in contact with the parietal layer at some point, and unless these surfaces were constantly moistened, there would be a painful friction. This occurs in cardiac

inflammations just as it occurs in pleuritis, the surfaces becoming roughened, and grating upon each other. It occurs most frequently at the point where the apex strikes the chest wall, during the time of the heart's systole. This disease is brought on more by rheumatism or rheumatic fever than anything else,—perhaps ninety per cent. would be about the correct proportion of cases thus originating. Whenever you are called upon to treat a case of cardiac disease, about the first question to ask is whether the patient ever had rheumatism, and if so, what its nature, extent, and severity was. It is the rule that in the young some cardiac inflammation accompanies any attack of acute articular rheumatism. No doubt the structure of the heart may become involved in some cases. The structure of the pericardium, both serous and fibrous, is such that either one may become involved in this disease, but most frequently it originates in the serous layer. The changes taking place are similar to those occurring in inflammations of other serous membranes. There is first hyperæmia, then swelling, and finally a deposit. The latter is an increase of the normal deposit of serum, and the surface is more dry than in health. Then there is very soon a pouring out of the ingredients of the blood, which coagulate, forming ridges and elevations of various forms upon the surface. If this trouble originated in one layer, the other layer would soon become involved, because of the irritation produced. Sometimes there is a great increase of the serous effusion, with very little of the albuminous or fibrinous matters, and we may have but little friction, or, we may get a little of the albuminous or fibrinous matters at first, which will subsequently be discontinued; so that the friction sound would soon disappear in consequence of the separation of the heart from the walls by this fluid. It would scarcely disappear entirely because the heart can hardly be kept away from the wall. Some part of the heart, the apex, will force itself through the fluid to the chest wall, ordinarily. It would require an excessive amount of fluid and much pressure to make the sound entirely inaudible. Occasionally, as in pleuritis, there occur bands of adhesion between the heart and its surroundings. The heart becomes tied to the chest by this deposit, sometimes to an extent which seems almost incredible. These bands become elongated in some cases so that interference in the heart's action would be very much less, but many times it is the cause which ultimately produces the fatal termination. That is, the heart may be so tied down that its disturbed action will produce disturbance of a lung or some other organ by the various congestions, etc., and produce death. But pericarditis does not often terminate that way. Although it is a serious affection, most cases recover,



many of them perfectly, but all are more liable to subsequent attacks than they were to the first. This deposit of serum frequently produces serious results, interfering with the action of the heart to such an extent that it produces other complications, but it is hardly the case unless there are similar accumulations elsewhere. When dropsy occurs in connection with other fluid accumulations it may produce serious results. The presence of a rheumatic fever is a symptom of pericarditis. You have no right to treat a case of acute articular rheumatism without examining the heart almost daily. If you find anything wrong with the pulse at all, direct your attention to the heart and watch for the sounds which indicate this trouble. There will be no friction the first day. It may not be noticed for forty-eight hours after the congestion, but there will be an early increase of the heart-beat; perhaps the first symptom you will notice will be this excessive frequency of the pulse. The pulse that had been steady or not more than 120, jumps up to 140 or 150 without a corresponding increase of temperature. Another very important symptom is dyspnoea, and the next pain. This dyspnoea, as is the case in all cardiac diseases, is relieved by sitting up. It seems to the patient that he will suffocate lying down, and it is about the first symptom the patient notices. Then comes the sharp pain which is so characteristic of serous inflammations. This pain increases, as well as the dyspnoea, unless the case terminates favorably soon. If there is an accumulation of fluid within the heart sac, the pain decreases, but not the dyspnoea. The heart's action is impaired by the presence of fluid, and this increases the dyspnoea. The sound in the region of the apex is not the blowing sound of endocarditis, but like the friction of pleuritis, or, compared by some to the creaking of new leather. You may be at loss to know whether this sound is due to pleuritis or pericarditis. It is produced by the coming together of the two roughened surfaces. Now, in pleuritis, this takes place at the end of each inspiration, just as the lungs become full of air, and this sound can best be heard after a deep inspiration. Friction occurs at the end of every inspiration. In pericarditis, the pulse is rapid and you would hear the friction 120 times per minute, if this were the pulse rate, because the friction occurs every time the heart strikes the chest. In pleuritis we hear it with every inspiration. It is possible that you might have both at the same time, but you would have other symptoms to distinguish them. When the heart sac becomes full of fluid, this friction diminishes, but it may return again increased after the absorption of this fluid, the same as in pleuritis. You should watch carefully for the disappearance of this friction sound. If progress is

favorable, the pulse becomes slower, softer and more regular, dyspnea gradually subsides, and the pain leaves. It is very important to treat this disease early. If you can treat it in the first stage, before there is extensive deposit, you may obtain an early cure, but if it is taken at a later period, and there is much deposit, recovery will be slow and rather uncertain. It is quite important when you find this pericardial murmur to know whether this is the first attack the patient has had. He may have had it for years and not be suffering any more than before. Ordinarily, if he has ever had pericarditis and has an attack of rheumatism, it will return. The second attack does not progress as rapidly as the first, and the prognosis would not be as unfavorable as during the first. This is a rule in the recurring inflammations. Often the patient apparently improves, when you have a recurrence of the trouble—a relapse which is perhaps worse than the primary attack, and this is liable to occur in any case until the patient is thoroughly cured. Any exposure to cold is liable to start the disease up with increased severity, and any excitement may produce the same result. Therefore you must be extremely careful in the management of these cases. Be exceedingly cautious about the admission of company, the taking of exercise, or exposure to draughts.

Remedies.—Aconite is the remedy of all remedies in the primary stage of this disease. It has a special action upon the heart, and will, if given at this stage of pericarditis, effect a cure. I would not give it lower than the 3x, and if its action were unsatisfactory, would give it higher—say the 6x or 12x, repeating the dose frequently, in severe cases as often as every fifteen minutes, until a change occurred in the pulse. I object to the giving of Digitalis and similar remedies in these cases. With these you can force the pulse down by drug action, but the moment you let go it will bound back again. If you bring it down gradually, as you can with Aconite, the cause will be removed, and the trouble cured.

Bryonia.—Following Aconite, we find the same condition that we find in pleuritis, for which Bryonia is well indicated. Indeed, it is one of the best remedies for serous inflammations of any kind. The primary restless, despondent condition of Aconite has subsided, and the patient has become more accustomed to his trouble; is quiet, and makes no attempt at movement, guards the movements of the chest. In addition to this, we have the rheumatic symptoms of pericarditis. Cactus is valuable in some cases, but more so where the nerve structure becomes involved. This is also true of Spigelia, but the latter is better adapted for pericarditis than endocarditis.

Prognosis.—The prognosis in pericarditis should always be

guarded. You cannot tell very much about the result at your first visit. Mild cases sometimes assume a severe character in a few days, while severe cases may be greatly modified in the same time. It should be looked upon as a serious disease; a disease which is liable to be so complicated as to trouble the patient all through life. It is not generally necessary to explain this to the family, if they know that the heart is involved. You should occasionally examine the heart for some considerable time after convalescence is established. In other words, you should stand guard over the patient long after you have really dismissed him. Have him recall you immediately if the trouble returns, for it can be most easily handled during the first forty-eight hours.

ENDOCARDITIS.

Endocarditis is one of the most common affections of the heart, and one which is productive of serious consequences unless checked at once. This is due to the fact that the structure of the endocardium is the chief constituent of the valves of the heart. Consequently, no serious inflammation of this membrane could exist without changing in some way the structure of the valves so that they do not perform their functions properly, failing to close the orifices tightly when required. This closure being imperfect, the blood does not travel in its usual course, but regurgitates and goes backward instead of forward, and effects both circulations. The principal cause of endocarditis is the same as that of pericarditis,—rheumatism, and the percentage of cases so produced is about the same as in pericarditis. Whenever you have a cardiac murmur, ascertain at the outset whether the patient ever had rheumatism; if so, how long ago, and how severe, and whether he has suffered from dyspnoea and cough ever since. It is frequently the case that this trouble has existed for years without being noticeable. It is more liable to occur in the young, say between the ages of five and twenty-five years, and more especially from the fifth year to puberty, the liability lessening somewhat after puberty. No doubt the increased development occurring at puberty may give the person some resisting power which will aid in throwing off this disease, but the functions performed at that time have nothing particular to do with it. This membrane is similar to the serous membranes, although not strictly a serous membrane, and its diseases are quite similar to those of the serous membranes. We first have hyperæmia, swelling, redness, and the other usual symptoms of inflammation. We have here, too, a deposit consisting of albumen, fibrin, and such other blood constituents, as are found in pericarditis, but there

is a difference, in consequence of the constant motion of these substances on the surface. The blood is in constant motion, as are also the valves, so that this deposit is picked up and changed in shape. Instead of lying in ridges, as in the pericardium, it assumes the form of warty excrescences attached to the valve, or some other portion of the auricle or ventricle, as the case may be, the free end presenting a branched appearance and being perhaps quite long. This frequently breaks off, forms an embolus, is carried into the circulation, lodged in some artery, obstructs it and produces trouble there. This is frequently the case with the arteries of the lung, kidney, or any other organ, or the extremities. But this is a little unusual. These excrescences do not break up very often, and in many cases of endocarditis these are not very numerous. Besides this, the inflammation affects the deeper tissues. It affects the subserous layer; the fibrous portion of the valve is involved, until we have twisting and other destruction of these structures. They curl up, or may be perforated from ulcerative processes, so that for all future time they are not as useful as formerly, and fail to perform their functions properly. If the disease is of short duration, some little change in the structure may become corrected, and the valve restored to its former usefulness. The deposit upon the surface may become absorbed to a certain extent, just as it is upon the surface of the pleura, and a comparative cure performed in that way. The prognosis in regard to recovery, if the case has existed for many days is not favorable. The symptoms of endocarditis are usually pretty well marked. They are somewhat like the symptoms of inflammation covering the heart; the pulse is rapid, (this is one of the first indications,) often intermitting, one beat being strong and another weak, or the beat being duplicated. With this there is dyspnoea, with increased action of the heart; the heart throbbing violently. This, of course, does not take place until there is some change in the valve. Thus the heart is trying to do what it cannot,—force the blood onward. The left side and the mitral valve are most easily affected, but no valve is free from it. Now, what symptoms are there which would prove a case of endocarditis? The chief symptom which we rely upon is the peculiar sound produced,—the so-called bellows murmur,—a sound resembling very closely the blowing of a blacksmith's bellows. This occurs during the time of the normal sound of the heart, necessarily taking the place of that sound. If the valve closes imperfectly, you do not hear the abrupt tick which indicates perfect closure. You hear, instead, this blowing sound, just the same as the crepitant rale takes the place of



the vesicular murmur of the lungs. It requires some skill to detect the murmur in many cases.

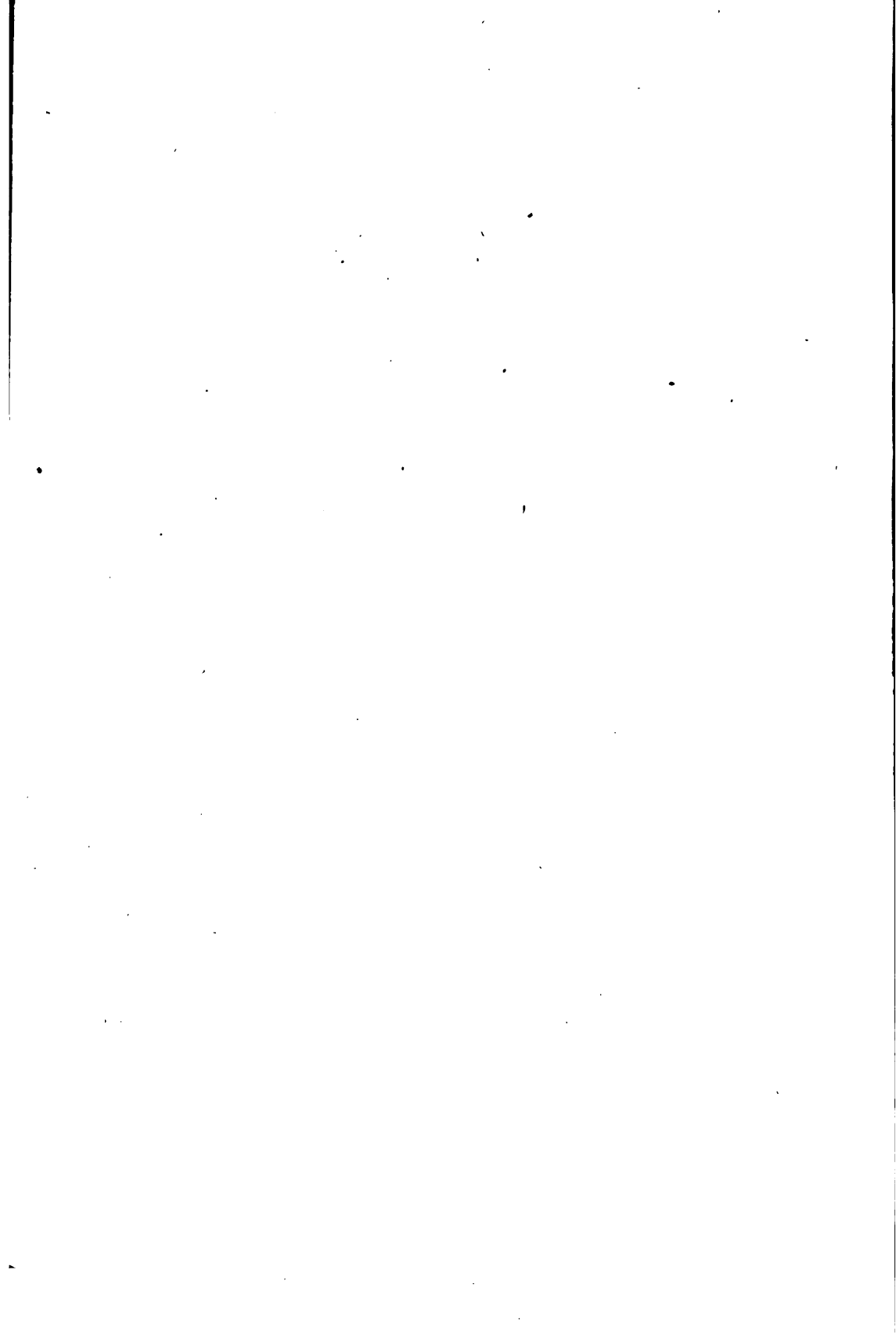
The stethoscope is perhaps of more value here than anywhere else, for we have to examine these cases with the patient in the recumbent position and it is exceedingly difficult to apply the ear. It is quite important to know which valve of the heart is affected. There is a simple rule for detecting this: In the first place, the sounds produced on the left side are heard most distinctly at the point where the apex strikes the chest, while the sounds produced on the right side are heard most distinctly on the sternum, at the junction of the fourth costal cartilage. Of course, the sounds can be heard at other points, but not as distinctly as at these. If the abnormal sound is produced upon the left side, you will hear the normal sounds of the right side at the customary point on the sternum. If the mitral valve is diseased you cannot hear any normal valve closure at the point of the apex beat, but you can over the sternum. How are we to distinguish between the non-closure of the auriculo-ventricular valves and the non-closure of the arterial valves? The closure of the auriculo-ventricular valve occurs during systole, and is the first sound of the heart. If there is an abnormal sound occurring in connection with the first sound of the heart, or taking its place, then it is either the mitral or tricuspid which is diseased. If it occurs during the second of the heart, the aortic or pulmonary valve is affected. Then you follow the same rule that I gave you before. If a case of endocarditis progresses favorably this murmur diminishes, the sound grows less, and after a while you hear an approach to the normal sound, which is finally re-established, the pulse in the meantime becoming slower, the temperature diminished, and the dyspnoea gradually disappearing. Sometimes this murmur is heard occasionally and the cure is not yet perfect, and under some undue effort you can hear the murmur for many weeks or even months. Ordinarily a case is incurable if the abnormal murmur does not disappear in three months. Do not disturb these patients with too frequent examination, as it excites them and brings on a dread which has an undesirable effect upon the circulation. People are usually aware of the dangers of cardiac troubles, and it frightens them. Make things as hopeful for them as you can; at least, say nothing when you cannot say something favorable. This is a good rule in general practice. In almost all cases the patient prefers the sitting posture, and if it continues for any length of time disturbances of the respiratory tract result. Bronchitis is one of the first troubles. A hacking cough, which is usually paroxysmal, worse upon lying

down or upon one or the other side, which, if long continued, is accompanied by considerable expectoration. Many of these cases become sub-acute or chronic, or the inflammation subsides altogether, and this valvular deformity or disease remains through life. Anyone so afflicted will ordinarily have a cough upon rising in the morning, with some expectoration, which may be profuse. They frequently have headache with dizziness, imperfect vision, ringing in the ears, coldness of the extremities, a dyspnoea which interferes with severe exercise, faint readily and always complain of palpitation. You will find ever so many of these cases which have never been diagnosed properly, in which the valvular affection has never been noticed before. I want to impress upon you the duty of examining carefully all cases where there is any suspicion of this disease. If you find a rapid, irregular, intermitting pulse, or much suffering from dyspnoea, examine the heart and lungs thoroughly, and if you fail to find what you expect, examine again at a future time, or have the patient take some exercise, as this may develop the murmur.

Prognosis.—The prognosis in these cases is not as unfavorable as generally supposed. You are not to let the patient infer that because he has disease of the heart he will die in a few months. I can bring to mind persons who have had a distinct murmur for twenty-five years and are still living. Of course, they have taken good care of themselves, and might otherwise have died long ago. So the prognosis is not always unfavorable, and if I am positive that this trouble has existed for some years, and the patient is not then suffering from some serious complication, I tell him that he may live a good many years yet, though he may never feel any better.

In valvular disease, constant changes are occurring in the heart itself. First, there is hypertrophy, general enlargement of the heart, which is greatest in the part having to do the most work. It would be greater on the left side, if mitral disease, and greater on the right side in tricuspid disease. It has to attempt to do more work than before, and this brings into play the muscles of the heart, increases their nutrition and they become thickened. It is common to find the wall of the left ventricle five or six times as thick as the right, when it should be only twice as thick. Now, the inevitable secondary result is atrophy of this wall, and it becomes thinner and weaker, and its cavity enlarged. In chronic cases you will frequently find cavities of the heart capable of holding twice as much blood as normally, and so the heart becomes flabby and the pulse weak. These patients are more debilitated than those in the first stage; circulation is easily disturbed, extremities are colder, and they are frequently subject to





disturbances of circulation in the different viscera. The lungs are the organs most involved, and more of these cases die of diseases of the lungs than of any other organ. In all cases you should examine the posterior and inferior portions of the lung and see whether there is any filling up of these parts, a subacute pneumonia produced by congestion, or possibly you may have œdema there. Generally anasarca is a common result, and many die from this cause. It affects the kidneys very early, and finally they only partially and poorly perform their function, and eventually dropsy sets in. The common idea that swelling of the limbs with heart disease is incurable, is nearly right. Eventually the kidneys will fail. This is particularly true of aged people in whom the functions are poorly performed anyway. In fact, in valvular disease of the heart you may expect trouble almost anywhere from this congestion, occurring from imperfect circulation.

Remedies.—The remedies in the acute stage would be about the same as for rheumatism or pericarditis.

Aconite doubtless covers the ground the best in the first stage.

Veratrum Vir. is used by some, but must be used with care. I have never seen any permanent good effects from large doses of this drug, such as some claim. I have seen the 1x or 2x dilution used in the usual way with beneficial results, but I prefer Aconite. If you do not get satisfactory results from the 3x, give the 6x or 30x, especially in very young persons, and if you have marked indications for the remedy.

Bryonia follows Aconite best, and in connection with attacks of rheumatism, is often indicated. You must not expect any very rapid change in this disease, therefore do not change the remedy because it fails to produce a marked change in a few hours.

Rhus Tox. is called for in a few cases where there are regular Rhus symptoms, but not one-fourth as frequently as Bryonia.

In rheumatic cases I would not change the remedy for the cardiac trouble if it covers the rheumatism well.

Apis Mel. 3x or 6x trituration, for the dropsy which we have in the second or last stages where there are marked indications for the drug.

Apocynum, Tincture. I have given this sometimes in drop doses, but ordinarily I put ten drops in a half-glass of water, giving teaspoonful doses and lessening the frequency after the trouble subsides.

I look upon relief in these cases as only temporary, for the treatment is palliative to a large extent. The removal of the fluid by

surgical measures is only a temporary relief, and it is impossible to remove all the fluid from the body by such measures. It extends upwards, commencing at the ankles and gradually extending to the knees, abdomen and chest.

I desire to say just a word here with reference to palpitation of the heart. This is a very common trouble, and one which disturbs the patient and friends. That is, people having palpitation of the heart always imagine they have some serious disease. But those who suffer from organic disease of the heart rarely think of it, and usually discredit the diagnosis when it is made. The conditions developing this rapid beating are those acting upon the nervous system, directly or indirectly, and those influencing or having an effect upon the muscular system generally. There is emaciation, loss of flesh which affects the heart as well as the extremities, so that a person recovering from a long-continued illness has a smaller, weaker heart than when taken sick. If he has lost one-fourth of his weight, you may calculate that his heart is only three-fourths its former weight and size, and consequently is so much weaker. Indeed, it has lost more than twenty-five per cent. of its force, because the nerve force back of it is also lessened, so that the action in such a case may be only half as strong as formerly. Let me warn you to prohibit patients from sitting up suddenly, or walking about while still weak. There is danger that a faintness may come from it from which the patient may not recover, or cardiac thrombosis may occur and clot the heart. This is a complication of la grippe which must be carefully watched. It has a marked effect upon the nervous system, and many of these patients have a rapid pulse for weeks or months after they get up. Tobacco has quite an effect in reducing the heart's action and producing an irregular pulse. This is a question to be asked in treating such cases, for the removal of the cause is necessary to the cure. However, the sudden stoppage of the tobacco habit may produce a feebler heart. I would advise the gradual lessening of its use. Temperance first, then prohibition. This is equally true of the use of all other stimulants. Alcohol has a similar effect, but its use must be gradually discontinued. Those who suffer from the use of stimulants in excess usually have an intermitting pulse with feebleness of the heart's action, and a heart which is easily excited. It may be unusually slow at times, but under unusual excitement it becomes exceedingly rapid. Indulgence in a wine dinner may increase the pulse to 120. Now, anything which will cause such rapid beating of the heart must be avoided, whatever it is. The frequent heart-beat weakens the heart, and hence it eventually becomes an incurable affection. To deter-



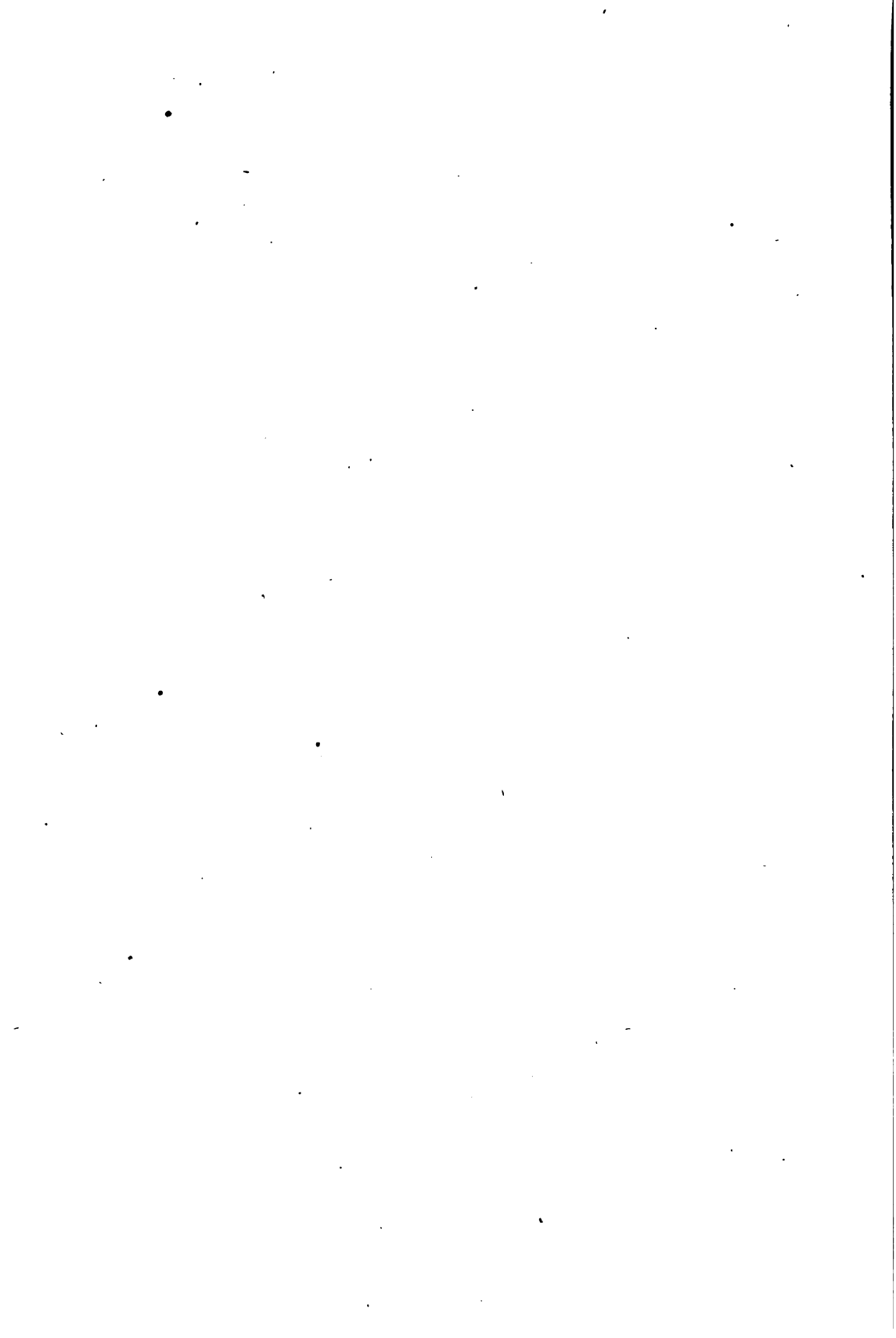
mine the cause it will be necessary to study the history of the case. You may find that the person is of a nervous temperament and that the heart is normal when free from excitement. The absence of any organic disease would lead you to suspect some other cause.

HYPERTROPHY OF THE HEART.

This may come from disease of the arteries or from some obstruction of the general circulation. If there is any obstruction it requires a certain amount of effort on the part of the left ventricle to force the current of blood through the systemic vessels. If an obstruction exists in any part of the kidney, liver or spleen, lung or brain, the current is obstructed to that degree. In cirrhotic kidney or hepatization of the lung there is an obstruction to a large part of this systemic circulation, consequently the heart has to force the blood up against this obstacle, and it requires great effort; on that account the blood in passing onward is carried through other vessels into the heart, consequently, in cirrhosis of the liver the blood which should normally pass through it has to be forced through other vessels in other organs. First, this increases the size of the heart to compensate for this obstruction. Like any other muscular structure—for it is so called—to do an increased amount of labor there is increased nutrition, and there is engorgement and thickening, and sooner or later, provided this obstruction keeps up and this increased effort is demanded, weakness is the result, with attenuated walls. This enlarged and thickened heart becomes thinner and weaker, and the cavity instead of becoming smaller is becoming larger. This increased force of the circulation of other organs is liable to excite trouble there, and in cirrhotic kidney or liver it is not uncommon to find some disease of other parts later on. The constant pressure of this accumulated volume of blood which is accumulated in one organ and obstructed in another is liable to produce engorgement of that organ. One organ is so dependent upon another that disease cannot exist in one without affecting the other to a considerable extent. We may have engorgement of the heart itself. In aortic disease we have hypertrophy of the left ventricle. It is called upon to do increased work, and the blood which it should force onward does not remain where sent, and when the ventricle dilates again the blood goes in the very opposite direction; the blood which has been forced into the aorta returns, and as a consequence the heart is overloaded and it again has to force the blood onward which it had once before sent into the aorta and which had returned through the orifice.

Gradually the left ventricle becomes enlarged—sometimes two or three times its normal thickness. This may come from the effect of drugs or from undue excitement; the use of stimulants of all kinds has a tendency to develop hypertrophy. I formerly supposed that hypertrophy could not exist without some disease of the arteries, some contraction of the arterial system—or valvular disease of the heart. I have learned that a person can have hypertrophy of the heart with valves that are almost perfect. It is a common disease among soldiers, and if you will notice, the leading soldiers of to-day rarely live to old age. Many of them become impaired in health, and the law of the land is that they should retire at 62, because they have been subjected to such terrible excitement. Frequently the heart becomes increased in size, and for a time it accomplishes its work. In such a case, one can endure a pulse of 120 under the stimulus of some excitement, but eventually the heart becomes weaker. In almost every case of a soldier who has been in active service for any length of time, we find feeble circulation, that is, the heart has become enlarged and its walls weakened. This is so with those engaged in gambling, or speculations, or anything which brings about such a state of excitement and affects the circulation in that way. Excessive eating is another thing which calls the heart into action, and it requires an extra amount of effort to get rid of this surplus food.

The symptoms of enlargement are generally quite noticeable. If the heart becomes increased in size the apex is displaced, it being the most movable part, and extends downward to the left. It is not unusual to find it out of position $2\frac{1}{2}$ or 3 inches, so that instead of one inch to the left of the nipple line it is directly beneath, or possibly carried around to the right. To detect this the patient must be in an upright position, sitting or standing, and perhaps leaning slightly forward so as to bring the apex in close apposition to the chest. By placing the tips of the fingers between the ribs—the intercostal space we can note just where it strikes the chest. If we have hypertrophy with dilatation there is really no apex, the apex is flattened, the left ventricle being dilated. The impulse is therefore felt over considerable more territory than it would have been normally, over an extent of, perhaps, three inches in diameter, while normally it would not be more than an inch or, perhaps, $1\frac{1}{2}$ inches. Of course, the sounds of the heart in the first stage of this disease are increased and you have a full pulse, the left ventricle being strong enough to force the blood into the systemic vessels,—that is, those which are not obstructed. You find the pulse at the wrist full and bounding, irregular, or possibly there may be intermission. If you have dilatation and weakness the



pulse becomes full and compressible and more irregular, the rhythm is imperfect and it is frequently intermitting. Of course the ear will detect any murmur that may be present, or if it is simply hypertrophy without valvular disease, you notice as you place the ear upon the chest in the first stage that the heart beats so forcibly as to lift your head away from the chest. Later, when there is dilatation and weakness the same effort is made, but the effort fails; the heart's action is deficient in force, and you have simply a discriminate beat; that is, the the impulse is not as great—its force is lost.

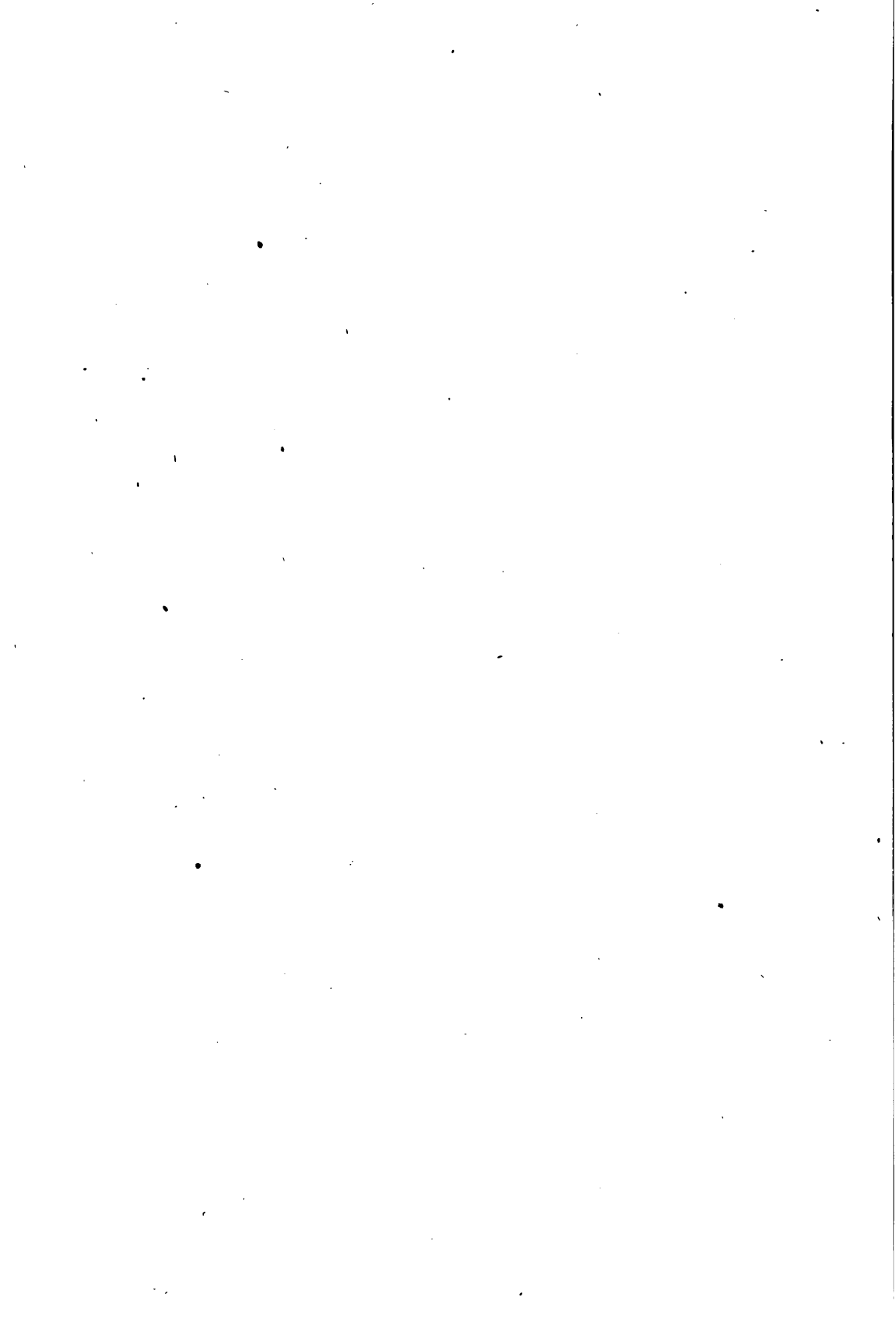
The prognosis in these cases is not unfavorable as a rule. In hypertrophy of the heart in the first stage, which has been brought on by overeating, stimulation or excessive excitement, if you can remove the cause you probably can effect a cure, or at least the heart can be restored to something near its normal condition. The heart is capable of more change than any other organ. Take for instance, the soldier on a campaign, every day for six months undergoing great excitement; he does not get the normal amount of rest, and the circulation of a man like that is always disturbed. If at the end of the six months' campaign there has been no permanent change in the heart, that is, no valvular disease, that man by proper care, by taking the requisite amount of sleep and the proper amount of exercise and avoiding the excessive use of food and drink, will get along all right. That is the trouble with many of these men. When the campaign is over they go to the other extreme in the use of stimulants. A demand for it is created by this excessive excitement. We find it so in this city in men engaged in a pursuit which requires great activity of the mind, they are very liable to become addicted to the use of stimulants, and when the crisis is past, they continue these stimulants. In such cases the pulse probably goes up from 110 to 120. If I examined a man for a life insurance, where the pulse was 120, I would have him call again at some other time when he was not under the influence of stimulants. He is in a condition which he considers his best. If these men reduce their stimulants, eating regularly and sleeping as they should, that heart can be restored to its normal condition, unless some permanent damage has been done.

CHAPTER VIII.

DISEASES OF THE URINARY TRACT.

THE KIDNEY.

Fortunately there are two kidneys instead of one, and when one is diseased the other for a time is able to perform all the work. The secretion of the kidney could be performed by one kidney for a considerable time without any serious detriment to the health. There is probably no pair of organs where one is able to do so well the work of two. The kidneys are situated posteriorly to the peritoneum in the lumbar region, and are not held very firmly in position. They have not such support as have the organs which are nearly surrounded by the peritoneum, and consequently it is not uncommon to find that the kidney has left its original abiding place and is situated somewhere else in the abdominal cavity. I have been studying up this matter for the last two or three years and realize that there are more cases of displaced or movable kidney than I formerly supposed. When a person becomes exceedingly debilitated there is a tendency to relaxation of the supports of the viscera and consequently it is not uncommon to find the liver, spleen, stomach and intestines—and the kidneys as well—out of position. In a person suffering from relaxed stomach, where it seems to be enlarged, it is well for you to examine and see whether the kidney is in its proper place. The right kidney is the one most frequently displaced. It lies to the right of the umbilicus and below. In a person who is extremely thin you can feel the kidney by placing the tips of the fingers of one hand on the upper side of the kidney and pressing upward. If it is out of position you will find by grasping it at the lower extremity it will slip upward, and you can tell it by its shape. Sometimes you find a deformed kidney—a kidney which is changed by disease, but these are exceedingly uncommon. Floating kidney is common enough so that you should think of it in every case of general relaxation of the abdominal organs. You should think of it in a person who is suffering from obscure pains. It frequently excites colicky pains, nausea and vomiting, and



such people are liable to be attacked suddenly by severe pains in the abdomen, which disappear upon lying on the back for a considerable time. The presence of the kidney at that point seems to interfere somewhat with the operations of the intestines. The obstruction produces this vomiting and pain. Persons become accustomed to these abnormal conditions of the kidney after a while. I presume I have had charge of at least a dozen people who have displaced kidneys, in two of whom the right kidney was displaced for ten, fifteen or twenty years. One lady has been confined twice during that time. She has not force enough to keep the parts in position, and this kidney has been out of position most of the time. She can tell when this is more anterior than it is generally, so her method is to lie down and apply pressure, and if there is considerable tenderness she will poultice the part for a time and these symptoms disappear.

I remember a case which came to me from another town, which had been diagnosed cancer of the pylorus. She had constant vomiting and was unable to retain any food. There was great pain in the right hypochondrium and somewhat below. A tumor was there, which was the supposed cancer, and it was exceedingly tender. She had considerable fever, and the symptoms indicated that it was an acute trouble. She had been in reasonable health up to a certain time and then she began to have nausea, vomiting and fever. She was under the cancer age—between 30 and 40. She came to the hospital, poultices were applied, and she took nothing into the stomach for a considerable time. After a few days I was able to detect what I was positive was the kidney. This inflammation subsided, the fever passed away, and this gradually disappeared—that is, it slipped back to its normal position. I was called to see a case out in the country last summer. The patient had a history similar to this. She vomited for days and had pain. There was a tumor at the right of the umbilicus, which was exceedingly tender, and the contour of the kidney could be detected. I told her I thought there was no doubt about its nature. She came to see me at the office two or three months after. I advised poultice and treatment to reduce this inflammatory condition, and rectal feeding. Later she came to see me and reported that after abstaining from food for a few days, this trouble subsided and the tumor disappeared. By palpation I could feel the kidney and move it backward and forward. It was situated much farther back than at the time I saw her first. She has been in comfortable health since.

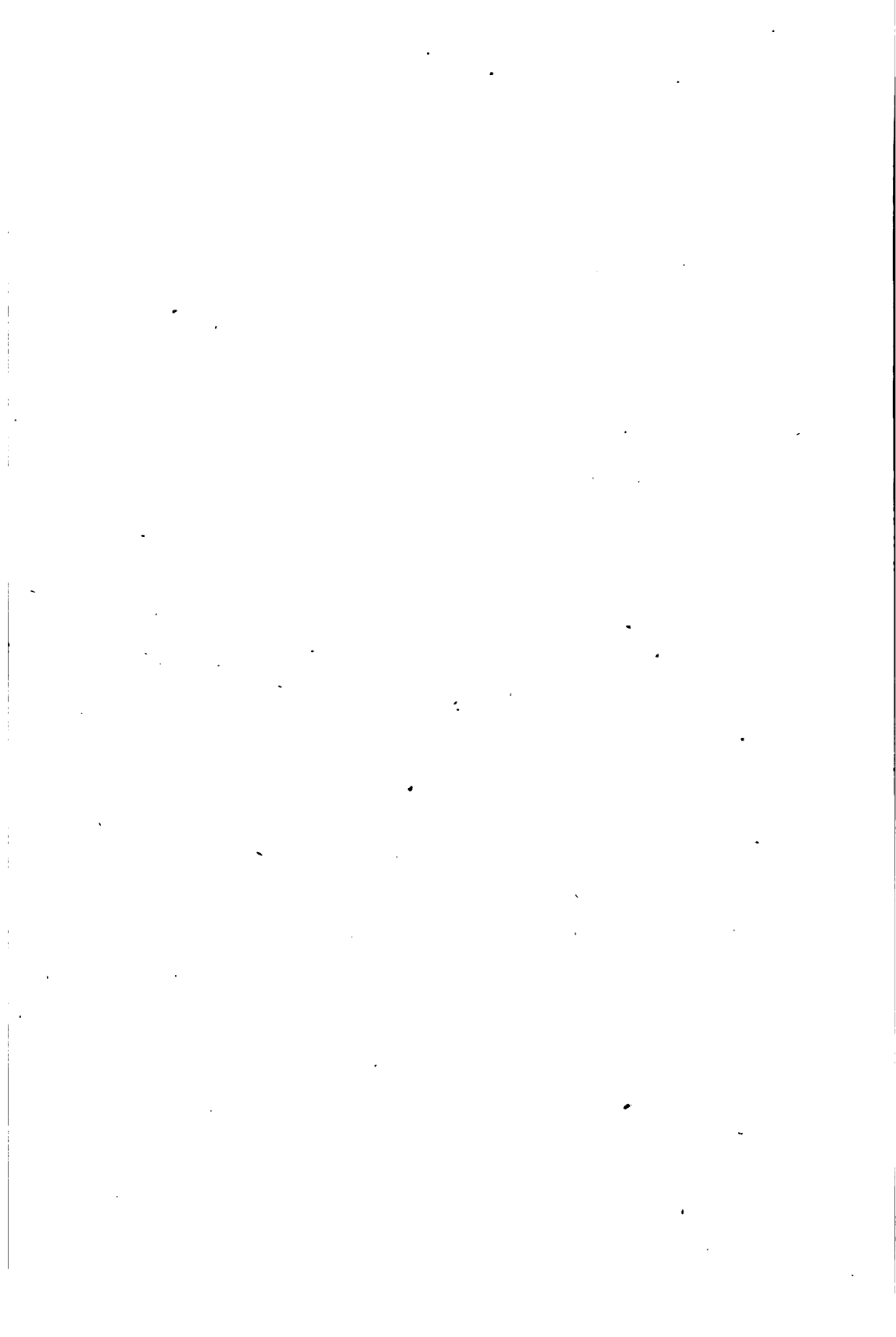
Aside from treating the inflammatory symptoms of these cases, as I have indicated, there should be some form of constitutional

treatment. Mr. Hessler makes an abdominal bandage, modified by a pad. This is an ordinary abdominal supporter and underneath upon the right side I have a pad made, oval in shape, about eight inches long at the longest diameter and six at the shortest, a little thicker in the center than at the margin, and this support is worn constantly. I have had but little trouble with these cases after the condition has been ascertained and this treatment applied. Of course there is surgical treatment, which is out of my sphere, and I do not know very much about the success of operations of this kind. I know one or two instances where this has not been satisfactory, and I have known probably as many—or more—who have been permanently cured. From the amount of relief that has been received from this method, the little annoyance it produces, I am satisfied to advise nothing further.

ACUTE PARENCHYMATOUS NEPHRITIS.

The kidneys are frequently the seat of inflammation. Inflammation may affect any part of this structure, or it may be general. You may have a general parenchymatous nephritis or you may have a nephritis, which may extend upward into the kidney and gradually become a general trouble. You may have first a parenchymatous nephritis and consequently an inflammation of the duodenum. It is hardly necessary for the general practitioner to attempt to sub-divide these various forms of acute inflammation. You are to find out whether the patient has any inflammation and whether it is enough to interfere with the performance of the function of the kidney and to such an extent as to imperil his life. It may involve one kidney or both. Probably the rule is, that both kidneys are involved at the same time when it comes from some general cause. Albumen is exceedingly common. It is so common with the pregnant state that the urine should be examined monthly, and no physician who has been notified that he is expected to attend a woman at that time, should fail to examine the urine. It is true in the large majority of cases it means nothing, but I think it makes some difference in regard to the care of women. Some are prone to this disease. One lady whom I attended was confined prematurely. She had two children and had had one attack prior to that. Miscarriage occurred at the fourth month in this case, and she had such a serious attack of nephritis that the sight of one eye has been impaired; the miscarriage was produced on account of this disease. When I attended her she went along to the sixth month without any appearance of albumen and then





in the seventh month it came on, and imperiled the life of the child—at least the child died in a short time, but she was delivered satisfactorily and made a good recovery. It has occurred once since under the care of another physician. In such a case you must be very particular. Supposing you were called to a case such as I have described and the sight of the eye should be lost before you were aware what the trouble was, what reflection it would cast upon you. Acute attacks of nephritis occur in tuberculosis, although this is not exceedingly common. The use of stimulants predisposes to this trouble, and the attacks of acute nephritis are those which come in connection with acute infections.

A child appears paler than is normal; there is a puffiness about the eyes and swelling of the feet, and possibly the nurse or mother has noticed that the amount of urine is very small; then you examine and find acute nephritis. These cases do not run into the chronic variety as frequently as you would suppose, that is, chronic nephritis comes more frequently independent of any other attack, aside from the symptoms mentioned. Possibly there is some cloudiness of the intellect, or sometimes a convulsion is the first thing noticed. Then we search for the cause. There may be a state of uræmia at first. There may be such acute congestion and engorgement of the kidneys that there is not a sufficient amount of secretion, so the urea accumulates in the system and the child has uræmic convulsions and may die before you can remove the cause. These cases are somewhat uncommon, however. We note possibly an increase in the amount of fever. The child is in fair condition before the attack, with some rigors, following which is fever. A child may convalesce from an attack of scarlet fever and we are called back and find that he is pale, that there is increased frequency of the pulse and that the temperature is elevated; then we note the puffiness, which would, of course, be the first thing we would enquire about. Most of these cases progress without any serious trouble. The symptoms gradually subside, the amount of urine increases, and there occurs a restoration to health. Occasionally they are exposed to cold, or possibly the patient may eat some food which is improper, and so have a relapse.

The treatment for this disease, in the first stage, would be Aconite and Belladonna, depending upon the primary symptoms, and these should be continued until the fever has subsided. If the patient is old enough to complain of pain in the lumbar region much relief can be secured by the application of some warm poultice. A large flaxseed poultice will frequently relieve, and of course it can be used in

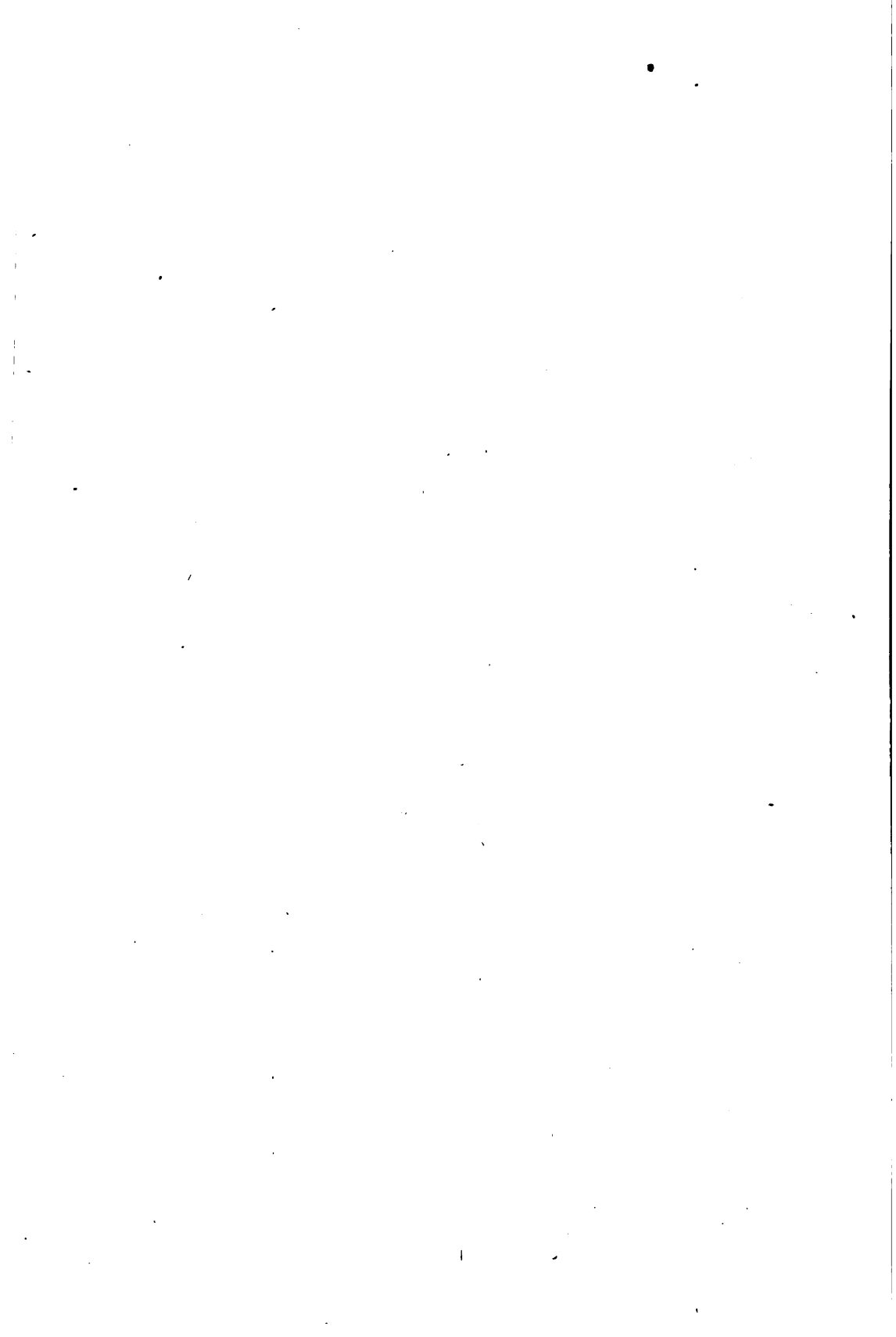
every instance. I object to the attempt to produce profuse perspiration which some practice for the purpose of relief. I hardly think it is necessary in any instance, and it is exceedingly debilitating. If I had a case of uræmia with convulsions I should not hesitate to put the child in a hot bath. In ordinary cases it is not necessary, and it simply excites the patient without sufficient occasion for it. Following this treatment, after the acute symptoms have subsided, especially in post peritoneal inflammations *Apium Virum* which is commonly used is frequently successful in removing the symptoms. I am now using a preparation which is prepared under my supervision. I have a lack of confidence in the *Apis* as ordinarily prepared in alcohol, especially in the lower dilutions. This I continue as long as there is any indication of dropsy, provided I have an amelioration of symptoms. The other remedy which I use is *Apocynum* tincture, ten drops in four ounces of water. The distinction I make between this and *Apium* is that we have more general dropsy with *Apocynum* and more disturbance of the heart's action, and where we have the irregular pulse, the imperfect rhythm and the general dropsy, I would not hesitate to give it.

You will be liable to make the mistake of discontinuing this remedy as soon as the patient shows some signs of improvement, or if there is no change. In a recent case of albuminuria following diphtheria, I gave *Apocynum* in that way, for six or seven days, without any apparent effect, and then came considerable relief and it was the only remedy she had. This was a case that was virtually abandoned, and the indications were plain. The only change I could notice was the dyspnoea. This child was sitting up and continued to sit up for about a week. She is perfectly well to-day.

BRIGHT'S DISEASE.

Chronic inflammation, or Bright's disease, is a disease which is frequently overlooked—probably as frequently as any other chronic disease we have. Here is an opportunity for every young practitioner to get ahead of some of the older brethren and establish a reputation in diagnosis. It requires but little care. Every physician is supposed to be able to detect the presence of albumen, and that is the principal feature; although some cases of Bright's disease have but a small amount of this, albumen is ordinarily the guide. Chronic cases of this disease are similar to the acute, especially those following infectious disorders. Occasionally we find a transformation of acute Bright's disease into one of chronic. Ordinarily the patient is not





aware of any serious trouble until it has advanced. It is wonderful how these cases will progress without being diagnosed. I was called to see a gentleman, who was at the time being City editor of the Leader. He had been ill for some little time. At the time I was called, which was in the night, he was taken with a serious hemorrhage from the lung. His face was puffy and I noted also a thickened condition of the arteries. I requested a specimen of the urine, which I had examined. It was a case of advanced Bright's disease, and the hemorrhage was a consequence. By the way, hemorrhage is not an uncommon symptom. That man had been under treatment for some considerable time, and not until that examination was made had he any idea what the trouble was. You will find such cases everywhere.

This disease is very liable to attack persons past middle life, although no one is exempt—males more than females. Irregular habits of living, intemperance of all kinds is liable to produce it, or at least predisposes to this trouble. The drinking of certain kinds of water which increases the flow of urine, that is, flushing the kidneys as they claim, no doubt has something to do with it. We find some women who take not more than half a pint in twenty-four hours. A person needs from two to three pints of fluid besides that contained in solid food. We have people going to water cures and drinking large quantities of water, and that will temporarily relieve them. They go to these springs and drink 20, 30 or 40 glasses a day and that carries off a large amount of the debris which has been accumulating. Supposing this had continued for some time, these diuretic fluids would be irritating. Of course the taking of beer has some effect, and our German friends claim that the American beer is much worse than theirs in that direction. Impure food is common, and nature has provided us with a means of eliminating the bad and caring for the good, though all these cases should be watched in regard to diet. Those who labor beyond a reasonable amount are, I think, a little more predisposed to this trouble than those who are mentally active. At any rate, we have many public men, even those who do not stimulate, who succumb to this disease. Undoubtedly it is more common than was formerly supposed, although in my opinion it was frequently overlooked.

The excitement which these public men undergo has something to do with it. Increased action of the heart has considerable to do with it, that is, the heart being called upon to do an extra amount of work, forcing the blood through the various organs produces a sort of hyperæmia which is liable to extend to one part or another; the vessels of the kidney being dilated by this extra amount of force with which

the blood enters them, causes them to become enfeebled, gradually becoming the seat of some permanent engorgement or inflammation. There is a very close relation between the heart and the kidney. The subject of Bright's disease is better understood than formerly, and it is my invariable rule if we find any serious trouble with the heart to examine the kidney and see if there is anything wrong there.

What would lead you to suspect this trouble? This is about the ordinary case—a man comes to you suffering from dyspnoea. Perhaps he has been walking and is puffing and prefers to sit by the window, perhaps opens the window to get more air; he sits leaning forward slightly, possibly resting his head upon his cane. You notice that he is a little paler than usual. That is not always the case, but it is quite common. Then you enquire in regard to his history and he will tell you that for quite a long time he has been getting out of breath when going upstairs, and you will find his heart beating tumultuously. Placing your hand upon the wrist you will find arterial thickening. Then you place your ear over the heart and you find that the beat is exceedingly strong. It is possible if the disease has advanced that the trouble is in the second stage and that there is some obstruction of the circulation. There may be stenosis of the aortic orifice or of the aorta, and there is a lack of proportion between the beat of the heart and the pulse. The sounds heard over the chest would lead you to think that there would be enough force to carry the blood onward, and yet the pulse is not as full as it should be. In many cases you find valvular insufficiency and you find hypertrophy of the left ventricle in most cases. As the case progresses feebleness follows. The heart will for a time make an extra effort, but it does not succeed in forcing the blood onward; it becomes thickened, and you find that the other parts of the heart are not taking up the work, and hypertrophy with dilatation follows. There will be impairment of the veins in many of these cases. It is exceedingly important to know the exact state of the retina. There will be ringing in the ears, the patient will complain of loss of memory and frightful dreams during sleep; possibly if the case is far advanced you will find that he is slightly delirious during the day. One patient, an alumnus of this institution, who practiced on the West Side, had a cirrhotic kidney. We had no post-mortem, but every indication pointed to this trouble. He came to my office and presented nearly all the symptoms which I have given you. He told me that he could not think as he used to, and it seemed as though he were going crazy; he had all kinds of visions in the day time. I found hypertrophy and an atheromatous condition of the arteries. Every symptom indicated a cirrhotic kid-

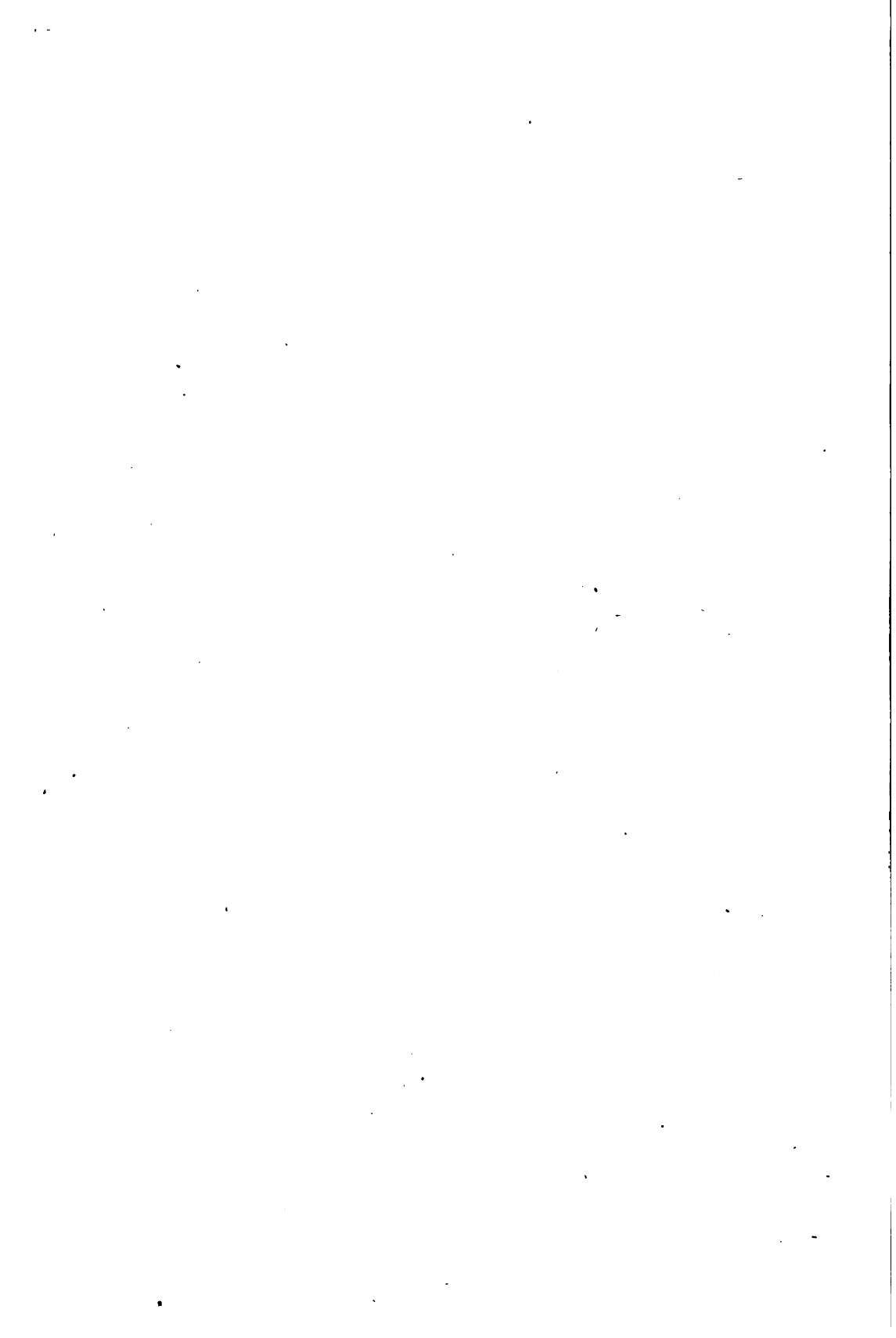
ney, and of course the examination of the urine confirmed this belief, and he did not live three months after that. He was sleeping in his office one day and went out with nothing on except his underclothing and enquired about his boarding place. Of course then his friends took charge of him and he was cared for, but he had been practicing up to that time. In ordinary chronic parenchymatous nephritis, in which the framework of the organ is not involved, non-cirrhotic cases, the patients live for years. They have acute aggravations. I remember a case I treated four years. He was able to attend to his business during the summer. He had vessel interests and on account of the amount of business, he refused to give it up. He would have lived longer possibly had he obeyed my instructions. I was the family physician, but he visited a cousin, a physician in New York, who examined the urine and said to him, "You have Bright's disease in an advanced stage." Mr. W. asked, "How long do you think I can live?" The New York physician said, "I do not think you can live three months." The result was that Mr. W. took the next train home, frightened nearly to death. I found that he had a chronic nephritis, with the usual symptoms, although it was not a cirrhotic kidney and the symptoms were not as bad as they had been pictured. I examined him several times and had the urine tested many times. He asked me the question, "How long do you think I can live? What must I do to get better?" I said, "Mr W., if you will do as I tell you, you will live ten years, I believe, but if you disobey the laws of health I will not promise anything." This man did take care of himself. This was in February and I took care of him until the first of May when he became interested in his vessels. I said, "You can go to your office three hours a day, going down at ten or eleven. Have your breakfast late, drive down and remain three hours, and then come to your dinner." He agreed to do so. It was not long after that he came to my office at six o'clock, and I found that he had been going to the office at eight o'clock and remaining there until seven or eight, frequently going without dinner. I said, "You will kill yourself." He again promised to carry out my instructions but failed to do so. By fall he was in bad condition. I then took charge of him and by spring he had improved in health. This was his history for four years. At the last he had a general anasarca, which lasted for months. He would get discouraged, notwithstanding he was doing as well as I expected, and some of his friends would think that somebody else could help him. During those four years he had rectal specialists, who claimed to have found the trouble, but he always came back to me. Finally, the fourth year he employed a prominent physician, (and

I never could quite understand how he could make the promises that he did) a man who has had as large a business as any other physician in the city, although he is retired from business now. He ordered him to take a ride in the park every day, telling him he was doing simply what he thought would cure him. Mr. W. went out riding and came back very much exhausted from the trip. He sat down in a chair until dinner was ready, went to the table, fell over and died. This happens in many cases.

I propose to summarize important symptoms, in such a way that you will certainly not let a case of chronic nephritis escape your attention. The first thing is to be able to diagnose the disease. You must not depend too much upon the specific gravity without making the other tests. The blood examination is necessary also to detect the trouble.

There is some distinction which you will be obliged to make; for instance, the difference between the large white kidney and the contracted kidney is something which has a bearing upon the condition of the patient. Chronic interstitial nephritis—cirrhotic kidney—has symptoms which are different from ordinary Bright's disease and the other varieties. We find in this disease an increased amount of urine, and we have a low specific gravity in many cases, with a very small quantity of albumen. All of these are misleading unless the microscope is called into play. In such cases you doubtless find granular casts in abundance, and hyaline casts as well. I pay no attention to the microscope myself for the report does not always correspond with the clinical history at first. I find there are varying conditions which affect the character of the urine, and this makes it exceedingly difficult for the examiner to get the same report at each time. A patron of mine came to me with a urinary analysis which stated that the urine contained hyaline and granular casts and a considerable quantity of albumen. I had known this patient for thirty years and treated him considerably, and I said, "I do not believe it. That report is not correct. That would indicate chronic interstitial nephritis. That cannot be." I examined him. This man had suffered from pericarditis and pleuritis, and there were some remaining adhesions. He was a sufferer from occasional attacks of pain in consequence of this embarrassed condition of the heart. I said; "I want a specimen of the urine." He sent me a specimen which I sent to a microscopist. I had a report stating that there were no casts and nothing of significance in the microscopical examination but a small amount of albumen. I told this to the patient. He then took a specimen and dividing it sent part of it to a third party. No. 1 reported the same condition





that he did before, No. 2 as I indicated, and No. 3 that the urine was perfectly normal. This shows that, after all, you have to depend considerably upon your own good sense and your knowledge of the symptoms of disease. I would not depend absolutely upon any examination or any product of the patient, no matter what it was, and certainly not if it did not correspond with the clinical history, and I know of no trouble where you are more liable to be misled, than in this disease. So far as the hyaline casts are concerned, we find a few hyaline casts in the majority of cases of nephritis. If you have granular casts and casts that are undergoing fatty degeneration you have a more serious affair. These granular casts I consider of most significance, and where they persist I believe that I have a case of interstitial nephritis.

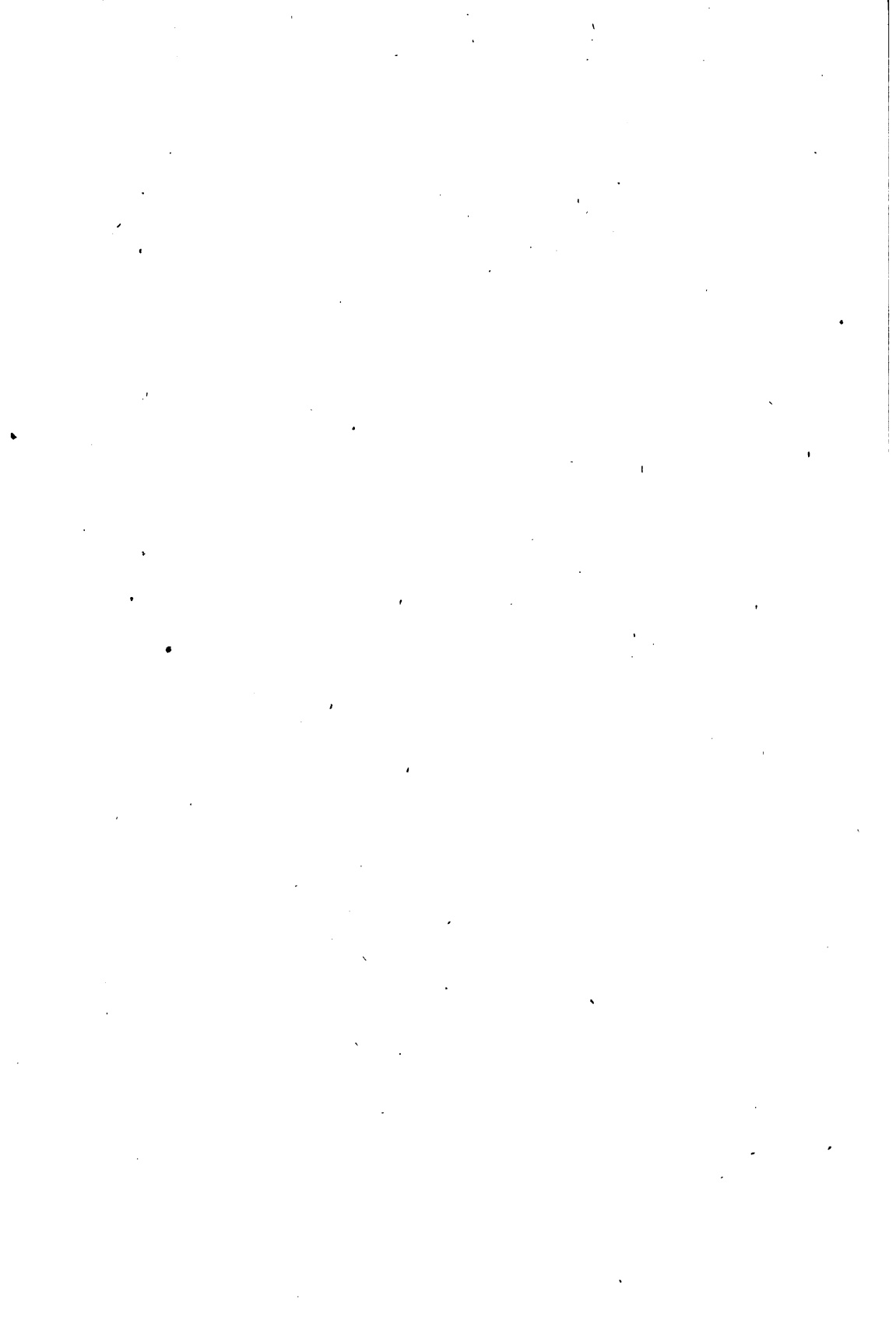
Another thing is lacking in interstitial nephritis, as you would infer from the increased amount of urine, there is no dropsy in many of these cases, and they are more inclined to present the nervous phenomena I have described. It is really the most serious form of the chronic variety, a disease which is feared and dreaded by the laity generally. It occurs in connection with cirrhosis of the liver and spleen. I remember an instance where the liver was very much contracted, and the right kidney somewhat contracted. Sometimes the ureter is cut off, the other organs being perfectly normal. This does not occur very frequently.

The prognosis in chronic nephritis depends upon very many conditions. In that variety which involves the nerve centers, in which the brain becomes easily affected, perhaps the first thing we notice is some derangement of the intellect. These cases are generally fatal within a short time, but where the mind is perfectly clear, where we have no drowsiness, no disturbed sleep, and even where we have considerable anasarca, it is not so serious. There is something strange about the dropsy. In many cases, when we get a large amount of dropsy the mind seems to clear, but in the latter stages when the anasarca is very great, of course the usual mental symptoms are present. The condition of the heart has to be considered in making up your diagnosis. There is sometimes a great deal of trouble if the patient's digestive system is not in good condition, but even then he may live for many months. Such cases have to be guarded with a great deal of care, like all cases of cardiac disease and must keep within a reasonable limit; they must have a sufficient quantity of sleep, and food should be taken regularly. The mind should be at rest. These people frequently become so hopeless that they do not digest and assimilate food, and hence we can do nothing for them. This is a condition of

mind which is unavoidable. Quite a number of these cases commit suicide. They become despondent and possibly the mind becomes deranged, for I hardly believe that a man who is in his right mind and capable of looking into the future will do this act, though insurance companies have not yet come to this belief. If a man of this kind has some occupation which he can carry on without great fatigue and serious result, he will live longer than if he is idle, or attempts to do that which he is unable to perform. A great many of these cases are situated unfortunately. They are in the midst of some great undertaking which exhausts their vital force and they cannot stop it, so they keep on and rush ahead until the end comes suddenly. The prognosis in these cases should be somewhat guarded, that is, you should say to the patient, "There is no immediate danger so far as I know, still this is a disease which we cannot tell very much about and there is a possibility that something may occur that will change its course; the probabilities are, however, that you will live a number of years."

In treating this disease, we treat the acute symptoms, and we find frequently acute aggravations, that is, we have other symptoms coming up which require treatment. A case of chronic nephritis is aggravated by the causes which produce the attack. For instance, a man has one kidney which is useless and the other kidney is doing all the work. This is subject, from the effect of increased nutrition which is demanded by the part, to hyperæmia and inflammation, and we have cessation of the performance of its function. I have seen numerous instances where the patient had a severe attack of inflammation of one kidney and then there came acute inflammation of the other kidney and the patient died in a short time from uremia. So you treat these acute symptoms as effectually as possible and in that way you can relieve and postpone the dangers to which these patients are subject. The patient should be instructed that if he has anything indicating chills or fever, pain in the lumbar region, or diminished amount of urine, he should call you, and you apply the remedy which is indicated in acute nephritis. Aconite and Belladonna will relieve many of these cases and prolong the patient's life. The patient should not be exposed to causes which produce acute inflammation. One case took cold by sitting near an open window without sufficient clothing. He had quite a chill, and then came the usual symptoms.

So far as anasarca is concerned, it is one of the principal things we have to contend with. There comes a time when the kidney is unable to carry off the urine, and there is dropsy; the legs are swollen, the swelling extends to the muscles of the back, and the hands or



.

.

.

.

.

.

.

.

.

.

.

.

.

.

.

.

.

.

.

.

.

.

.

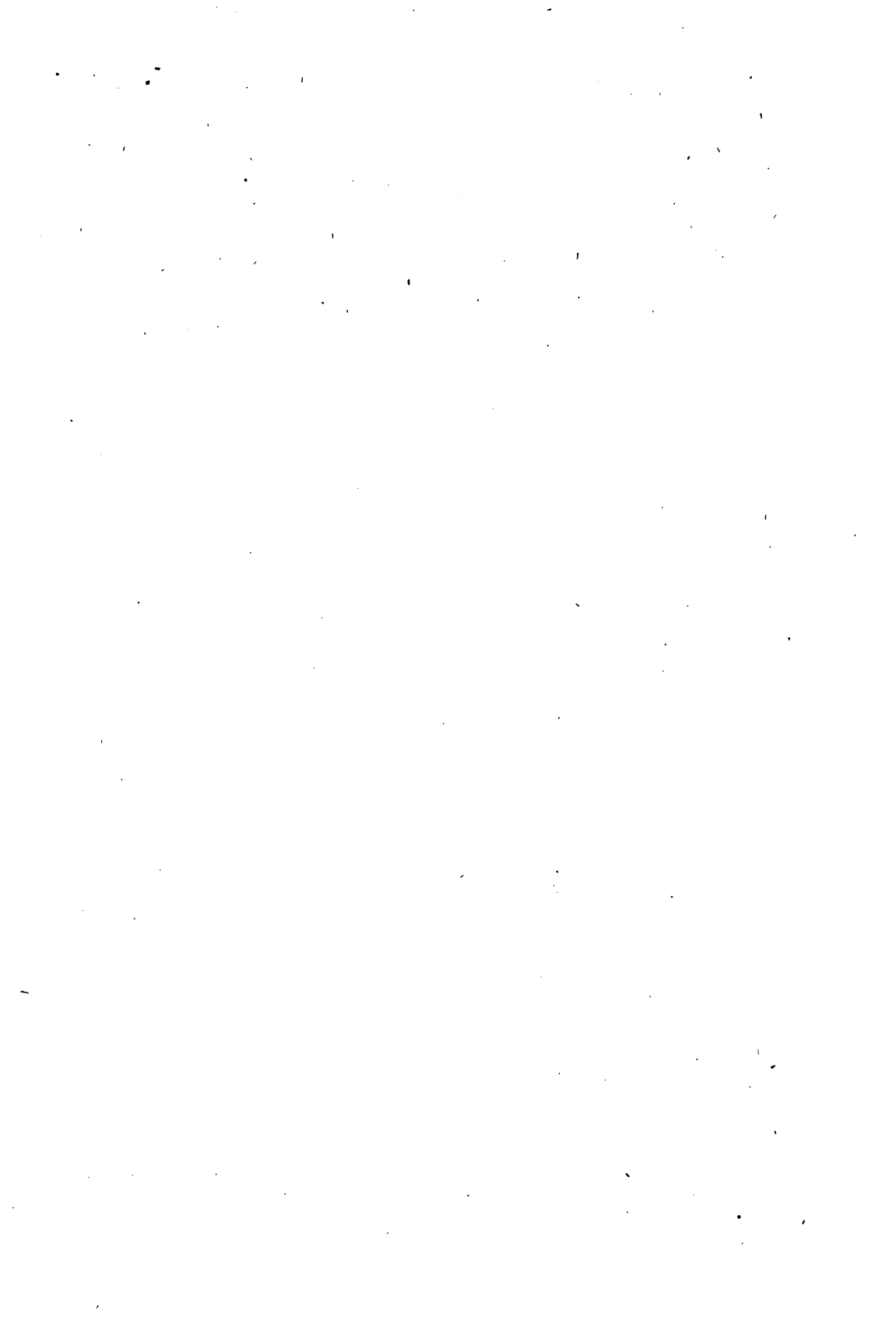
fingers pressed upon the back will leave deep imprints, and you have fluid in the abdominal cavity. The patient is unable to lie down, and possibly has not lain down for two or three weeks on account of dyspnoea. Apply the remedies I have stated and try to increase the flow of urine. Possibly the amount of urinary structure that is healthy is not sufficient to carry off this water, and you have to use some mechanical means, and perhaps can keep your patient alive for some time. There are various means for this purpose. Tapping in ascites is good practice, but if you have general anasarca this is of little service. Just removing the fluid from the abdominal cavity would furnish only partial relief, and if it is a case of cirrhosis of the liver there is very little relief from tapping. A more common method is to carry this fluid off by the alimentary canal, and you can accomplish considerable in this way. This is not considered a curative measure, but a palliative, and in some instances by emptying the fluid you can apply your remedy so as to get relief. I will remember one instance of a lady who is now about 75 years old. I treated her about fifteen years ago. Her case had been abandoned as hopeless. She had not lain down for probably two or three months, her limbs and abdomen were filled with fluid, and she had some fluid in the chest. I succeeded for a time in carrying this fluid off, and after about three months it failed to return. Then the kidneys seemed to take up their work, and she has lived without any dropsy since. That was an unusual case. The various kinds of cathartic remedies which have been used are saline cathartics. The remedy which is most effectual and at the same time the most powerful is Elaterium. This is a remedy which is used by all schools for this purpose. There are two preparations used, Elaterium and Elaterin. I prefer the solid extract of Elaterin, of which I use one-half grain pills. It does not retain its strength long and I prefer to have it made fresh. I have a case under treatment now who has taken this drug with relief. Sometimes a half-grain pill taken early in the morning will produce a thorough evacuation of fluid, but more frequently I give a grain pill the first thing in the morning, so as to get prompt action before the middle of the day. This patient took two grains one day and had quite prompt relief, but I would not give two grains ordinarily. The effect of it is about like this. He becomes nauseated in an hour or so, and there will be a profuse flow of saliva, and there suddenly comes a desire for stool, and if it works favorably he will discharge a gallon of fluid in the course of three or four hours. Of course that brings great relief. In a few instances you can follow this up every day, but if the patient is debilitated you had better

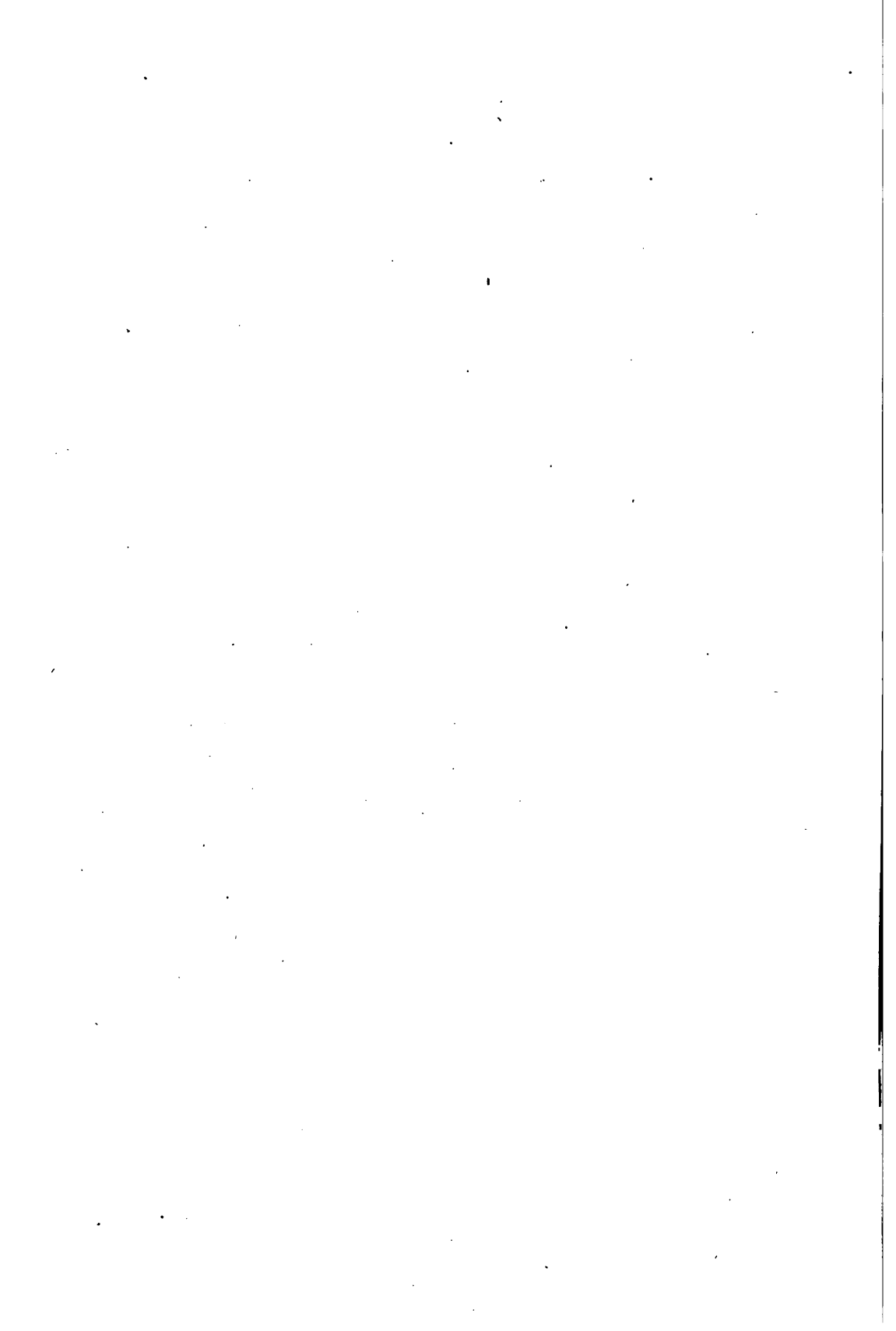
postpone it for two days. I advise whiskey as a stimulant, to be given as soon as this shows its exhausting effect. I give 2 dr. of whiskey in hot water every hour until the patient responds to it.

In some instances you have irritation of the rectum and a tendency to dysentery on account of the cathartic, and you will have to wait a few days until this has subsided. You can get similar effect from the various saline cathartics, and sometimes they work better than Elaterin. The ordinary Epsom salts is to be preferred, or the Sprudel salts given in sufficient quantity to produce a free, watery evacuation. This is to be done only after you have failed to secure the effect upon the kidney that you otherwise expected. Some of these cases leak probably a gallon a day from the lower extremities. I have noticed some physicians scarify the lower extremities for the purpose of producing this effect. I have never practiced this, because it is painful. There comes a time when you fail, unless the kidneys do their part. You cannot get rid of the uræmia, unless there is a considerable amount of urine. I note the amount of urine which is discharged each day. The remedy which I depend upon more than any other is Apocynum. I have used it for weeks, and sometimes months. In some cases I give five drops of the homeopathic tincture of Apocynum four times a day, and this will be sufficient to keep up the action of the kidney and prevent this anasarca. One patient has taken that for fifteen years, that is, she has had it on hand. She has had many attacks in which she would be unable to lie down for a good many nights and days. She takes this remedy more frequently during such times, a drop dose of the tincture once an hour, and taking it in this way it is perhaps four or five days before she gets any effect; then the kidneys take up their work and she is relieved. I have not used Digitalis as so many have. I have tested it to some extent, but I have been better satisfied with Apocynum than any other remedy given for that purpose. Apium Virum I have found not as satisfactory in cases of chronic nephritis as in acute nephritis..

RENAL CALCULUS.

There is something in connection with the urinary apparatus, viz. calculus, which you will be called upon to treat frequently. It is more common than is generally supposed. It is indicated by intense pain in the lumbar region, extending down the course of the ureters, and often affecting the testicle, with frequent and painful urination. This may be upon one side or the other. I really cannot say which kidney is more liable to be affected, but it seems to me it would be the





left. It is pretty difficult to diagnose this trouble. If on the right side we may suspect appendicitis, but the history would indicate that the patient had possibly had trouble of this kind before. The pain is so intense as to cause faintness, and this is continuous unless it is relieved in one way or other.

Of course the treatment is comparatively simple. If you are called to a case of that kind, the patient suffering to such an extent, you would not hesitate to give a hypodermic of $\frac{1}{4}$ gr. of Sulphate of Morphia, and I think that 1-150 of a grain of Atropine goes well with the Morphine. Ordinarily this will relieve. This should not be repeated in less than three hours. Sometimes the ureter takes up the calculus in passing. You can relax the muscles and coats of the ureter and it may be dropped back into a larger portion of the ureter. Occasionally you will find the calculus the next day. I remember one instance where a calculus of considerable size was passed and found the next day in the urine, and that was the last attack she ever suffered. An examination of the urine in these cases will reveal some of the constituents of the ordinary calculi. It is not necessary for me to indicate what they are. Sometimes the calculus is independent and there is no increase of urine to indicate what the trouble is. With the ordinary calculus you have in addition some crystals of light color that are passed with the urine. These cases frequently occur in persons who are high livers, or who are passing through some mental strain. The mental state has very much to do with renal calculi, that is, it is more liable to affect people of this kind. We find that many of these people do not take fluid enough, and there is a tendency to an accumulation of the solids on this account, so that we advise in these cases the free use of distilled water, or water that is entirely free from any mineral product. The patient should be instructed to live moderately and avoid all mental excitement and to have the urine examined frequently.

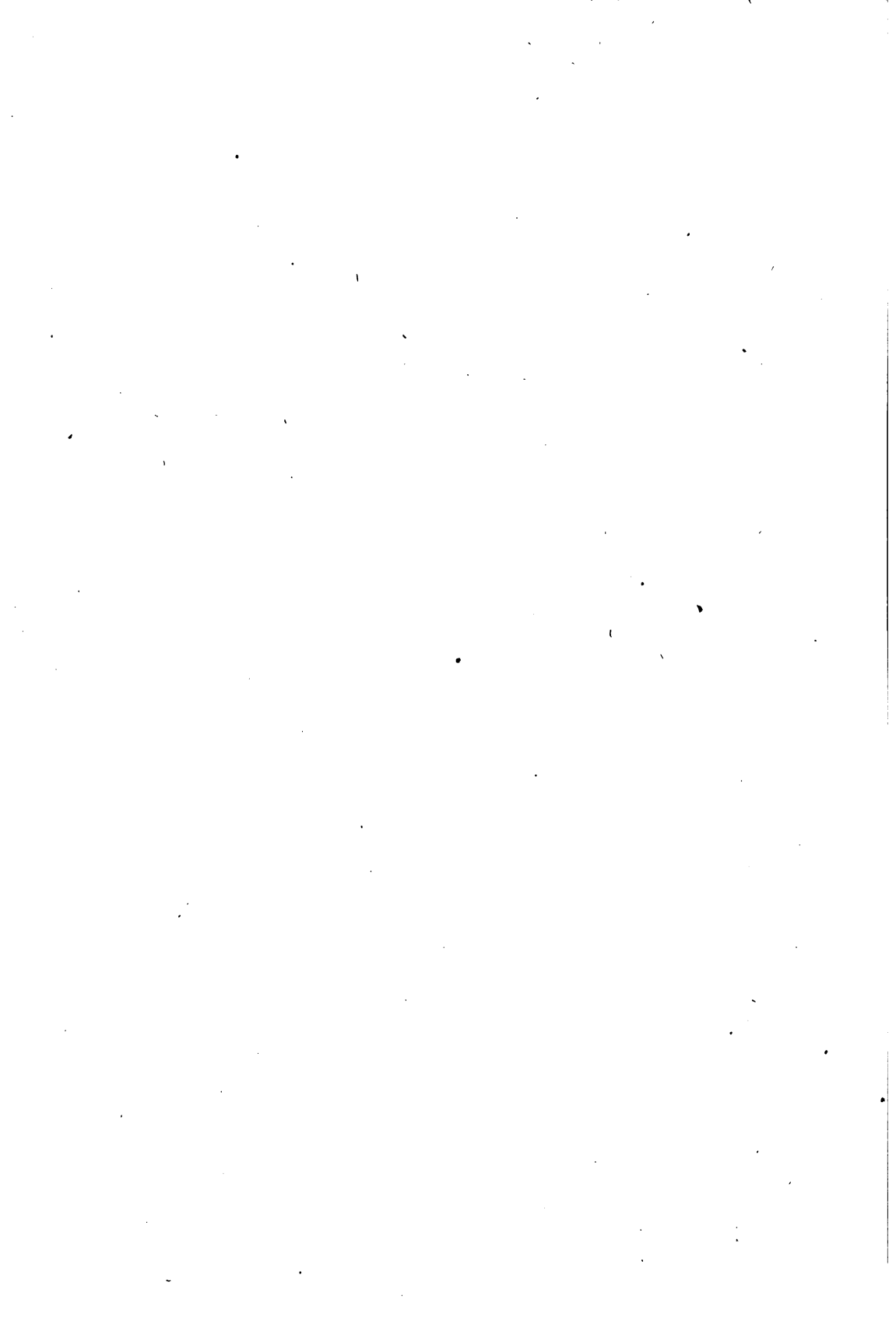
Life insurance companies have formulated a rule in regard to this. A physician whom I examined a number of years ago was subject to attacks of this kind, but it had been six months since the attack when he came for examination. I so informed the medical director and he replied that he would hold the matter in abeyance and if this man had no further trouble for six months would take him. These companies expect that if a patient can go a year without a return of the trouble there is probability of a cure.

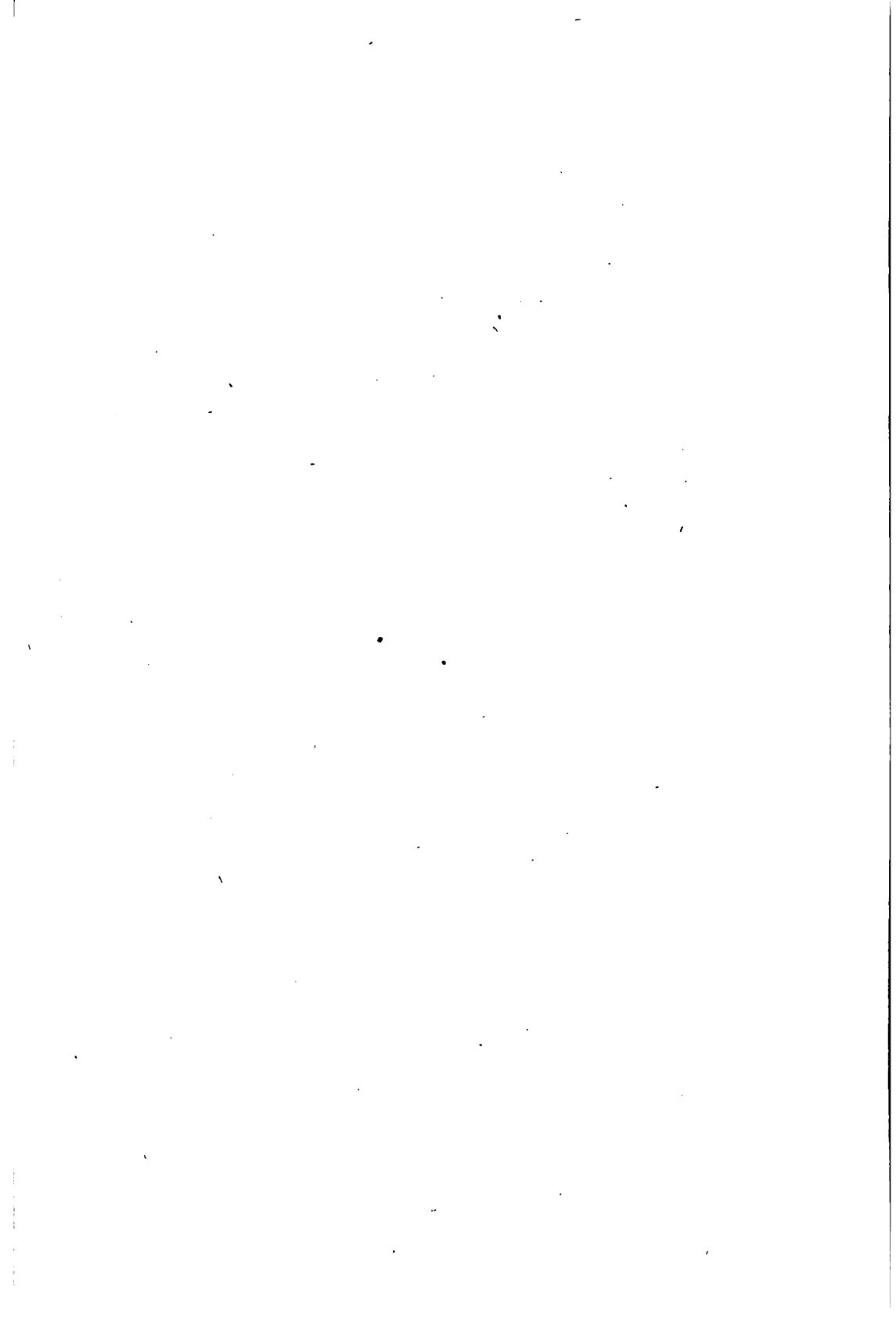
These cases frequently develop great inflammation of the ureter or the lining of the kidney, and we occasionally have calculi that cannot pass. I remember witnessing a post-mortem of a case of Dr.

Jewitt's a number of years ago. It was a captain of one of our lake vessels, who had been troubled for ten years, and had been obliged to give up his business for a number of years. He had suffered from various kinds of inflammation. He had nephritis and was passing crystals, and had all the evidences of obstruction of the kidney prior to his death, and finally died suddenly, from acute congestion of a part of the kidney which was healthy. In the kidney was found a calculus that was probably $1\frac{1}{2}$ inches in its longest diameter and presented different processes. This had been there for years.

ABSCESS OF THE KIDNEY.

Suppuration or abscesses of the kidney is rather uncommon. How suppuration begins is a question. I have at the present time under treatment the most remarkable case of suppuration of the kidney I ever treated. This man has a history of severe attacks before. About ten or eleven years ago he had the first attack, while living in New York. He was treated by Dr. Guernsey and had the best surgical counsel that he could find. He was taken with intense pain in the left portion of the lumbar region, a chill followed by fever, and all the indications finally of suppuration, the remitting fever, with the intense pain. Finally there occurred a discharge of pus from the bladder, and this continued for two or three months, gradually subsiding, when he appeared to be well. During this time his physician and surgeon were very positive that he had calculi and advised operation. It was not performed, as he objected to it, but about every two years since that time he has had the same attacks. The last attack was about four months ago, the worst he ever had. He was under treatment about six weeks before I saw him. I suspected this trouble. He was then passing from 2 to 4 ounces of pus a day and had so much pain that he had to take Morphine almost daily. I looked over the case and found he had ascites, and possessed every symptom I could imagine under Cantharis—frequent and painful urination, and all the accompanying symptoms. I gave the 3rd of Cantharis, omitting of course, every other remedy, and in the course of twenty-four hours he was relieved. I continued the use of this remedy, and I do not think I gave more than two or three other remedies during the course of the treatment, which lasted from February to November. In the meantime the quantity of pus had gradually diminished, until it was scarcely perceptible, and he had gained flesh and was able to go about his business. He was called away and I reluctantly consented to have him go to New York. He was gone about three weeks and





came back much worse, and about two weeks ago he came into my office, and I noticed he was not so well. He was nervous and restless, his pulse was rapid, and he had a slight elevation of temperature. He had been ill for several days, and the result was that he had a relapse and began to pass about the same quantity of pus again. I had the urine examined by several experts, but there were no casts, and there was nothing to indicate where the pus came from—so far as the urine was concerned, and no indication whatever at this time of hypertrophy or inflammation. It was evidently a large abscess which discharged into the valves of the kidney, because the tenderness was very marked over the left kidney, and when he was passing pus he had burning down the ureter and a frequent desire to urinate. These cases are quite unusual. This case was examined by a surgeon prior to my taking it. A physician in New York clung to the opinion that it was calculus, and he called in consultation another surgeon who agreed with him and advised removal of stone in the kidney.

Of course the treatment in a case of this kind is to give the remedy which will control the various symptoms which accompany this trouble. The patient needs to be sustained by nourishing food, as we sustain any one who is suffering from suppuration. He is taking now one-half oz. of whiskey in about two-thirds of a glass of milk four times a day. During his first illness I did not give him any stimulant whatever.

CARCINOMA OF THE KIDNEY.

Carcinoma of the kidney is rather uncommon. Authors make the statement that it is liable to occur in children or in persons younger than the ordinary age when we suspect that disease. This is true of sarcoma as well. I treated a case of sarcoma of the right kidney, and this possibly may keep you from falling into the same trap with myself. It was a child eight or nine years of age, and he had dullness extending down over the liver as far as the crest of the ileum, and forward to the umbilicus. I examined the liver frequently and it was perfectly normal, and a physician who saw the case agreed that it was a case of enlarged liver—in all probability a carcinomatous liver. The post-mortem revealed the fact that it was the kidney enormously enlarged, crowded up close to the liver, and the ureter entirely cut off, so that the urine came from the opposite kidney, which was healthy. I do not remember examining another similar case.

DEGENERATION OF THE KIDNEY.

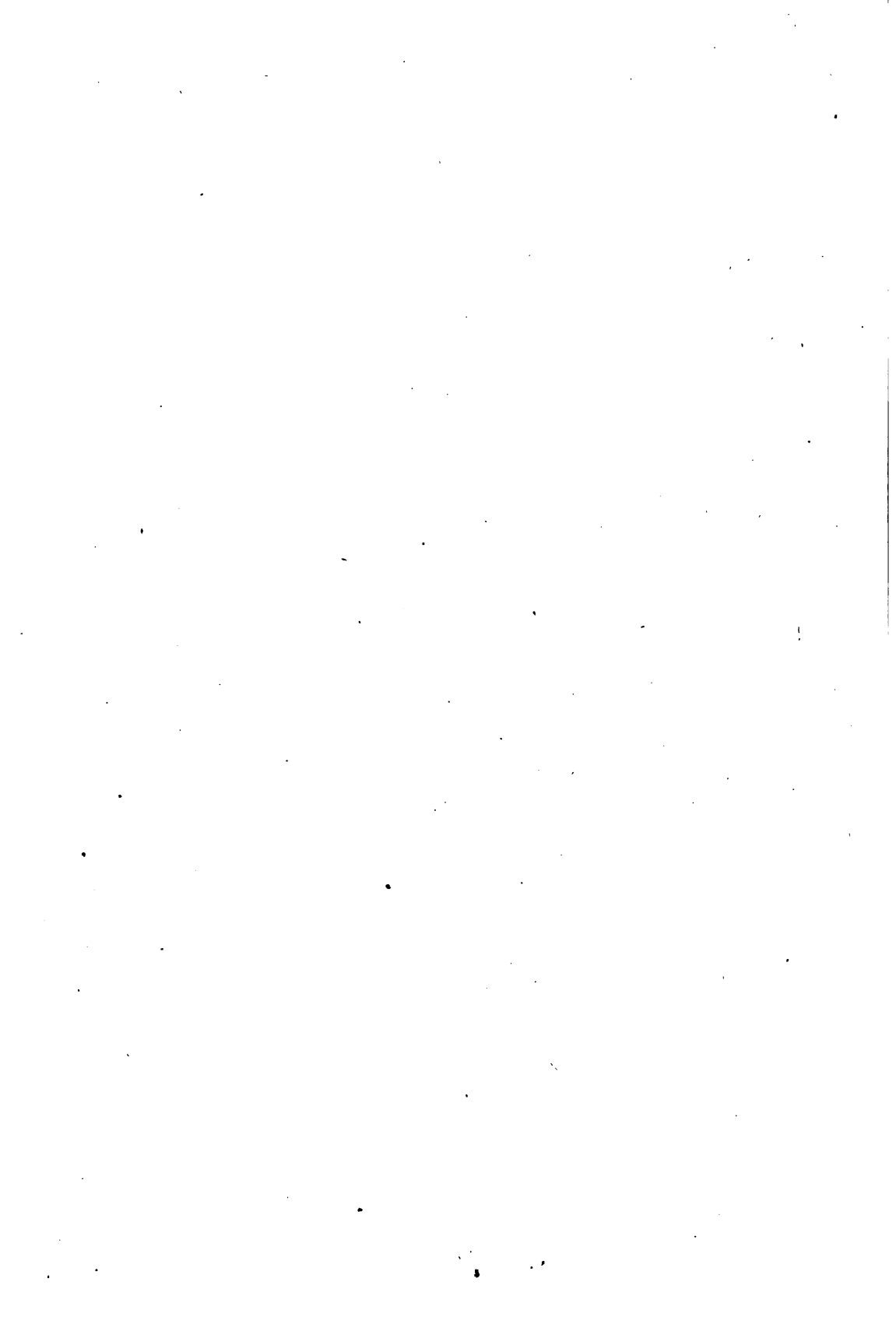
Then we have degenerations of the kidney, breaking down of the structure of the kidney, an obstruction of some of the ducts, the vessels filled with urine, and these break one into another until we have a large cavity. A gentleman who died a few weeks ago had a kidney of this kind. He had been attacked two or three years before. He was advised to have it removed, and they told him that if it ever ruptured it would cause his death. He refused to have the operation performed. He stumbled and fell and produced a rupture. An operation was performed, but he died in two or three days. I remember one case where both kidneys were cystic, and were situated anteriorly close to the abdominal wall. That man died of obstruction of the duodenum in consequence of the presence of gall-stones. In addition to which there was this condition of the kidneys. Both kidneys were degenerated. This is probably a little more liable to occur in displaced kidneys than those in normal position. You can readily understand this.

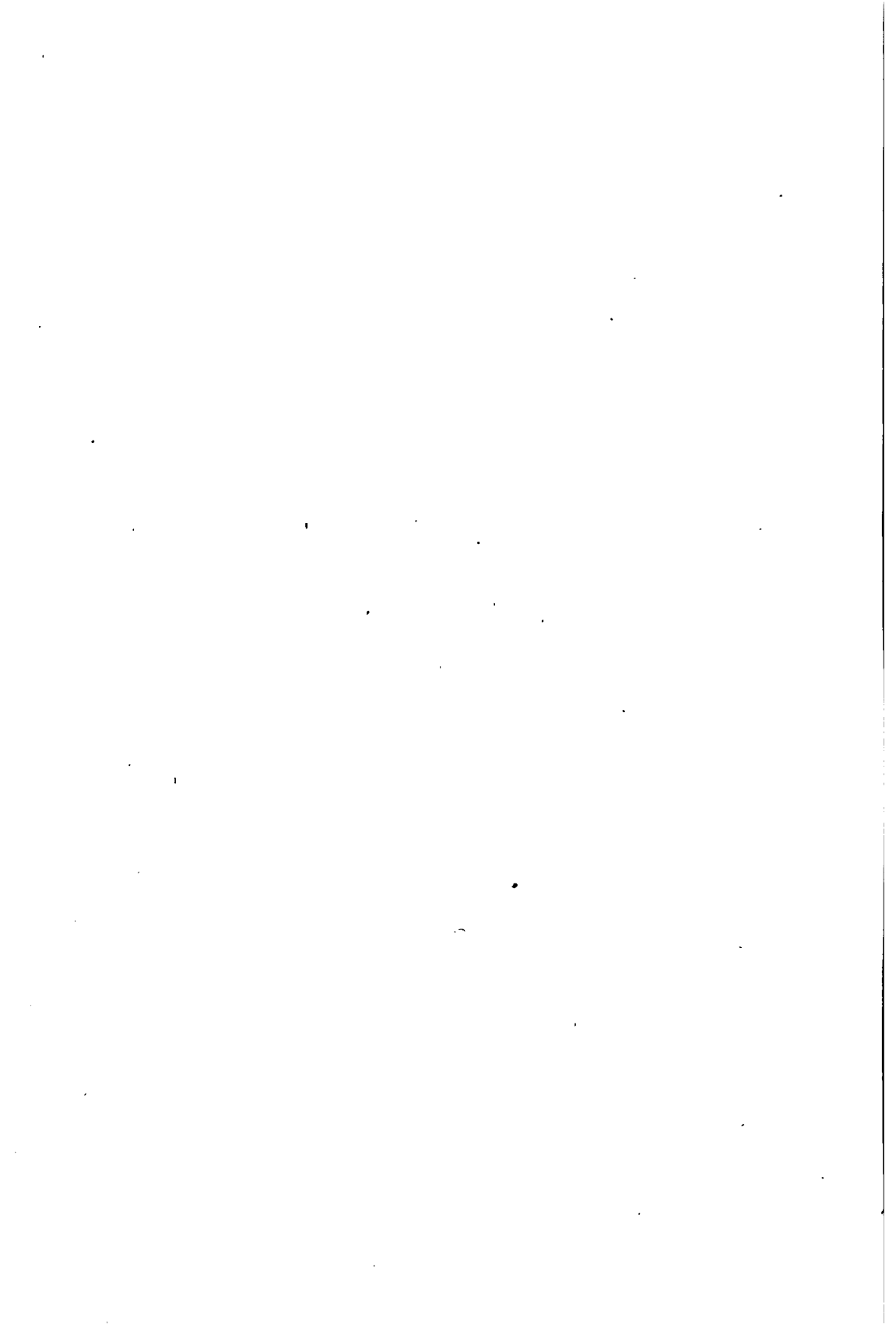
AMYLOID KIDNEY.

Amyloid kidney is a disease which occurs so rarely that it is hardly worth mentioning. Those which I have seen have occurred in connection with amyloid disease of the liver or spleen. This occurs in connection with tuberculosis, or excessive suppuration, and especially in suppuration of the bone. The kidney becomes enlarged, presents the appearance of hypertrophy that is the normal structure of the kidney is so changed that we have uræmic symptoms in an advanced stage. This is a disease which is incurable, and we can only palliate the symptoms. You can suspect this disease when you have in addition to the uræmic conditions, considerable enlargement of the liver and spleen. The heart's action is extremely feeble in such cases, and degeneration of the muscle results.

DIABETES INSIPIDUS.

Diabetes insipidus—diabetes without sugar—is not exceedingly common, but is liable to occur at any age but especially at middle age, more frequent in males than females. There is some indication that heredity plays a part in the cause of this. It is sometimes the result of traumatism; injuries of the base of the brain or cervical portion of the spine have been known to produce it. It has been





located in several organs. The part the nervous system plays in the origin of this disease is not fully known, but there is a general agreement that the region of the fourth ventricle is the one most liable, when affected, to produce this trouble. Diabetes insipidus is more probably of nervous origin than diabetes mellitus.

It comes on insidiously and slowly. The other organs which are liable to be affected are the pancreas, liver, spleen and heart. Authors do not pay much attention to syphilis as a cause of diabetes insipidus. I do not quite understand how this is, for I have known several cases produced by this disease, occurring in the latter stages of the trouble. It is characterized by the discharge of enormous quantities of pale urine, the specific gravity varying from 10:01 to 10:05 or 10:06, looking like distilled water. It contains neither sugar nor albumen. The amount voided in twenty-four hours varies considerably. I have a bad case under treatment in which the amount reached 13 gallons daily for some considerable time, but this is pretty nearly the maximum. Thirst of course, is excessive. There is a desire for something sour, or something which will, as the patient imagines, quench the thirst most promptly. This thirst is the most pronounced symptom, and in consequence the patient takes large quantities of fluid, and the stomach is so distended that it interferes very materially with the digestion of any food at all. The patient becomes debilitated, is obliged to keep his bed, and his mind becomes disturbed. He has visions and mild delirium. Frequently there is intense pain in the occiput, and in one instance where the case was as I have stated, this headache preceded the diabetes a considerable time. In consequence of this frequent urination the bladder and urethra become irritated, and frequently there is incontinence of urine. Then there may be a severe urethritis, which causes considerable disturbance, and constipation is the rule where the patient is voiding such a large quantity of urine. There is very little fluid left to carry on the functions of the other organs.

The prognosis of this disease is not unfavorable, as a rule. Many of these cases, in fact, the majority recover after a considerable time, and the tendency is to regard the trouble a little more seriously than we should. So far as I have seen, I would say that 90 per cent. of the cases recover. The prognosis is much more favorable than in diabetes mellitus.

In regard to the treatment of these cases, you are, if possible, to discover the origin. If it is syphilis, as is I think more frequently true than is generally supposed, the treatment for that disease is to be instituted at once. Most of these cases are relieved quite promptly

by the use of remedies which are ordinarily used for that disease. It is not always an easy matter to get at this cause. Sometimes the patient is unconscious of anything of that kind, or perhaps the secondary symptoms might have been so slight that he did not consider it worth while to have any treatment. This disease does not come on in syphilis until quite late. Then if it is the result of some injury, of course rest in the recumbent position and the avoidance of any excessive mental effort which would be liable to produce congestion in the part which is injured, would be the proper treatment. The diet should be of a character that can be easily digested. A patient of this kind cannot digest solid food. You cannot avoid giving him drink, but it is not necessary to take fluid to the utmost limit. You had better limit the amount of fluid he is to take. Ordinarily you can get along with from four to six quarts daily, and in that way diminish the amount of urine voided. I would not restrict a patient to such an extent as to make him miserable, so thirsty that he could not sleep or live in comfort.

DIABETES MELLITUS.

The other variety of diabetes—diabetes mellitus—is considerably more common. Every physician will treat a number of cases a year of this disease. It is a disease which is frequently overlooked. The patient being obliged to urinate frequently for some considerable time on account of the severe irritation of the urethra, does not notice that he is passing a larger quantity than formerly, but finally he is aware that he is voiding eight, ten or twelve quarts of urine daily. The specific gravity varies considerably. Ordinarily it is above normal—from 10:30 to 10:40; sometimes it is down to normal or below, so you are not to lay aside the idea of diabetes mellitus because the specific gravity is 10:15, and you can use the test. The amount of sugar voided varies considerably, and the amount of urine secreted also varies from three quarts to thirteen or fourteen, the patient voiding from two ounces to a pound of sugar daily.

In regard to the origin, the same darkness prevails as with diabetes insipidus. It is known, however, that irritations in the vicinity of the fourth ventricle are liable to produce something of this character. I remember one instance, where a fireman while standing on the foot-board of a pony engine, fell backward and struck upon a large piece of coal, which hit him a little above the shoulder blade, so that there was an injury to the cervical portion of the spine. This man lived seven or eight years, but very soon after was taken with

diabetes mellitus. The last time I saw this man he was flagging the crossing at Collinwood, and he said he was voiding ten or twelve quarts a day. He had a large pail of water from which he was taking large draughts of water constantly. He was a patient of mine perhaps a year, and I had him before the class a number of times. This came undoubtedly from the injury, for I think he had had nothing of that kind before.

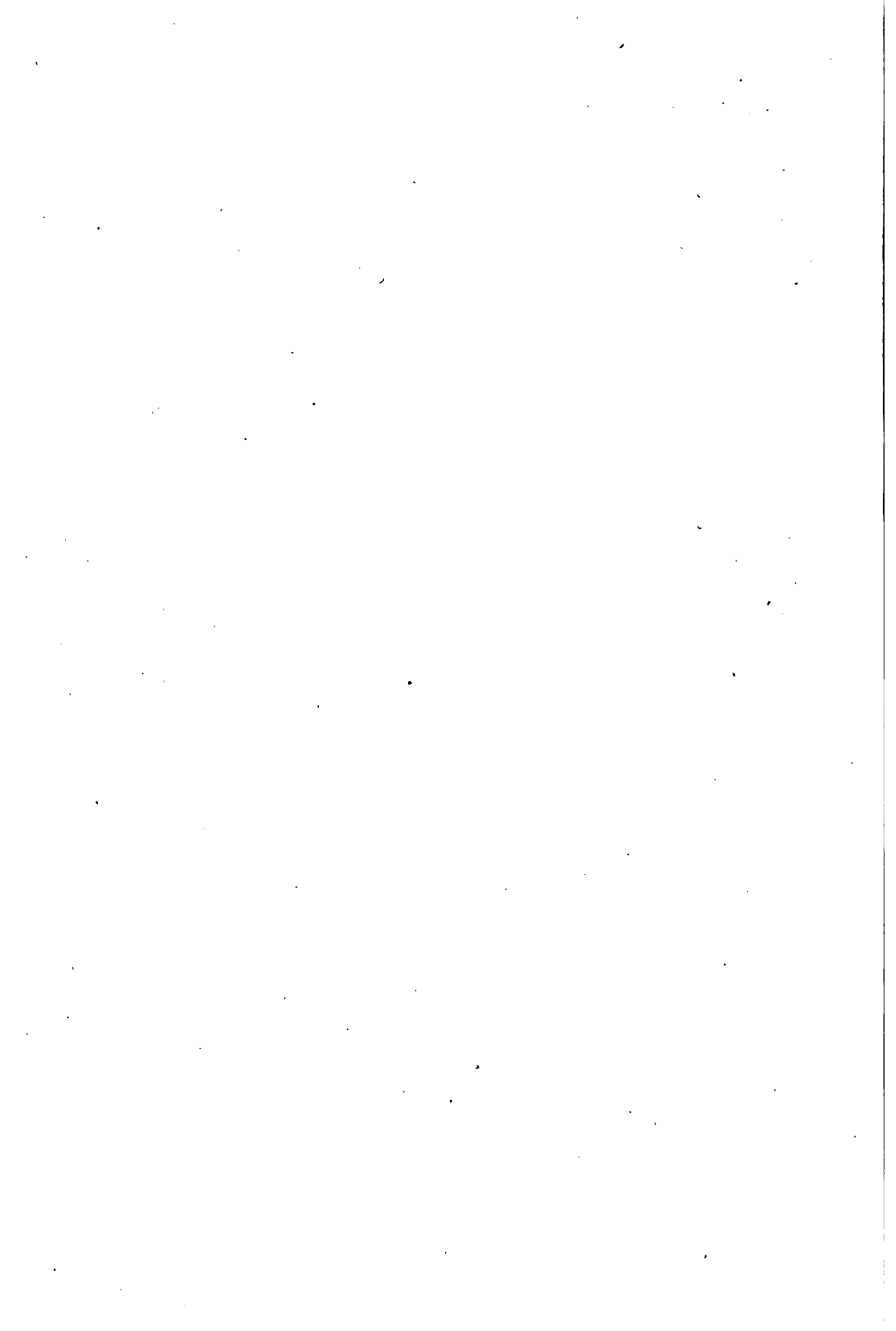
Some have an idea that the pancreas has something to do with this, some authors claiming that the pancreas is the seat of the trouble, the pancreas having been noted in post-mortem to be contracted, cirrhotic and unable to perform its function. Others claim that the liver and spleen, which are frequently found enlarged and sometimes cirrhotic, are the cause of this trouble. Sometimes the kidneys become changed. It may possibly come on as a secondary symptom in Bright's disease. I had a case last year where we had every symptom of cirrhotic kidney, and yet there was a diabetes which had existed for many months. Of course this makes a bad complication. The case is undoubtedly incurable; the patient is alive yet, but he is in a serious condition. The diabetes was benefited, all the other symptoms remaining, without any real improvement in the case. I presume this man had had diabetes two or three years.

The prognosis of diabetes mellitus is not very favorable. While the majority of the cases improve, and some of them are cured, only a small minority of them are perfectly cured. The improvement is variable and the patients suffer frequent relapses. While they may live five, ten or fifteen years, they are suffering continually from some trouble of this kind. So that in a case of diabetes mellitus you are to be guarded with reference to your statements as to the future. I have a case now whom I have treated for $1\frac{1}{2}$ years. He was passing seven or eight quarts at the most and the urine was heavily loaded with sugar. That gradually diminished, and now for a month or two he has scarcely a trace of sugar. He took a severe cold recently, which increased it somewhat, but this man is in pretty fair health, and has been able to attend to his business. He has regained flesh, and much of the time during the last six months he has felt as well as ever.

The diet has much to do with the management of these cases. The list which is published by Fairchilds Bros. & Foster is the one generally found in all books. I do not put the patient on such strict diet as that, because I do not like to compel him to live upon that which he does not relish, but I keep within a reasonable limit. I allow him some of the things which he craves to aid in his digestion

of other foods. You should consider somewhat the tastes of the patient and not carry your diet to the extent which is laid down by the authors. I would not allow the patient to eat everything, he should be dieted to some extent, but avoid going to the utmost limit. In regard to the amount of fluid, you should gratify the patient's wishes as much as you can, without distressing him. Give him a reasonable amount—say not more than four quarts daily. That is a considerable amount for the stomach. A gallon of fluid in twenty-four hours must cause distention of the stomach. These patients like carbonated drinks, and can probably get along with a less quantity if the drink is carbonated. I would not want a patient to take a gallon of carbonated drink, but water can be distilled. If you can get a natural water, which is equally as good as the distilled water, so much the better. In various conditions of the kidney I have used lithia waters. The best lithia water is the Geneva. One gentleman has been drinking bromo-lithia or Ripley water. Formerly he took Geneva water with some benefit. At first I gave Colchicum 2nd with apparent benefit. Then he had marked symptoms for Bryonia and has taken it four times daily for several months. This man was in a serious condition; was debilitated, weak and could not work. During the past four months he has been going about. I do not believe that he will ever be perfectly well; he will have a return of this trouble and fully understands the situation. These patients should keep moderately quiet, that is, they should not exercise excessively. I believe the mental state has very much to do with the trouble. It is undoubtedly of peripheral origin, that is, the majority of writers consider this to be so, and I have found that anyone who is worrying very much, who is anxious about his business, is liable to be made worse.

As regards other remedies indicated, I have used in some cases where we had considerable irritation of the urethra, Cantharis and this had some influence over the flow of urine. It has many of the renal symptoms of this disease. Apium Virum is another remedy I have used quite a little. It must be given not lower than the 6th, and continued for some time. If there is severe pain in the head, or if there is fever, Gelsemium will do considerable good.



INDEX.

- Abdomen, 281; Examination of, 281.
Abscess of the Kidney, 438; Cantharis in, 438; Morphia Sulph. in, 438.
Abscess of the Liver, 354.
Aconite in Acute Parenchymatous Nephritis, 417; in Asthma, 165; in Bronchitis, 209; in Catarrhal Enteritis, 313; in Cerebro—Spinal Meningitis, 153; in Diphtheria, 190-193; in Dysentery, 326; in Endocarditis, 401; in Gallstones, 346; in Gastritis, 290; in La Grippe, 274; in Laryngitis, 173; in Membranous Croup, 177; in Pericarditis, 401; in Peritonitis, 341; in Phlegmonous Enteritis, 318; in Pleurisy, 225; in Pneumonia, 237; in Quinsy, 169; in Rheumatism, 373; in Smallpox, 117; in Tuberculosis, 265; in Typhoid Fever, 93; in Varicella, 145.
Acute Parenchymatous Nephritis, 414.
Acute Tuberculosis and Typhoid Fever, 81.
Albuminuria and Measles, 138.
Alcohol in Smallpox, 117.
Aloes in Catarrhal Enteritis, 314.
Amyloid Kidney, 442.
Angina Pectoris, 378; Cactus in, 382; Digitalis in, 382; Nux Vomica in, 382; Pathology of, 378; Symptoms of, 378; Treatment of, 382.
Antitoxin in Diphtheria, 193.
Apis in Endocarditis, 401; in Rheumatism, 374; in Scarlet Fever, 133.
Apium virum in Acute Parenchymatous Nephritis, 418; in Bright's Disease, 434; in Cerebro—Spinal Meningitis, 154; in Diabetes Mellitus, 450; in Pleurisy, 226; in Scarlet Fever, 133.
Apocynum in Acute Parenchymatous Nephritis, 418; in Bright's Disease, 434; in Endocarditis, 401; in Pleurisy, 226.
Appendicitis, 329; Diagnosis of, 330; Etiology of, 329; Pathology of, 329; Morphia in, 333; Symptoms of, 329; Treatment of, 330.
Arsenic in Chronic Gastritis, 297; in Gastritis, 290; in Malarial Fever, 106; in Rheumatism, 374.
Atropine in Spasmodic Strictures, 281.
Asthma, 162-194; Aconite in, 165; Bryonia in, 165; Ipecac in, 165; Kali Bich. in, 197; Lobelia in, 165-197; Nitric Acid in, 197; Opium in, 165; Phosphorus in, 165; Pothos fœtidus in, 165; Stramonium in, 197; Sulphur in, 165; Symptoms of, 162-197; Tartar emetic in, 165; Treatment of, 165.
Auscultation, 161.
Baptisia in Typhoid Fever, 93.
Baryta Carb. in Quinsy, 169.
Bathing in Cerebro—Spinal Meningitis, 153; in Diphtheria, 185; in Scarlet Fever, 130; in Tuberculosis, 261; in Typhoid Fever, 86.
Belladonna in Acute Parenchymatous Nephritis, 417; in Diphtheria, 190; in La Grippe, 274; in Measles, 141; in Peritonitis, 341; in Phlegmonous Enteritis, 318; in Quinsy, 169; in Scarlet Fever, 130; in Smallpox, 117; in Cerebro—Spinal Meningitis, 153; in Typhoid Fever, 93; in Varicella, 145; in Whooping Cough, 214.
Blood Examination in Cerebro—Spinal Meningitis, 154.
Bright's Disease, 418; Apium virum in, 434; Apocynum in, 434; Diagnosis of, 429; Digitalis in, 434; Elaterin in, 433; Elaterium in, 433; Etiology of, 421; Salts in, 434;

INDEX.

- Symptoms of, 422; Treatment of, 430.
- Bromine in Membranous Croup, 178.
- Bronchitis, 198; and Typhoid Fever, 82; Aconite in, 209; Bryonia in, 209; Drosera in, 210; Phosphorus in, 209; Physical Signs of, 202; Sulphur in, 209; Symptoms of, 198; Tartar emetic in, 210; Treatment of, 209.
- Broncho-Pneumonia and Scarlet Fever, 129.
- Bryonia in Asthma, 165; in Bronchitis, 209; in Cerebro—Spinal Meningitis, 154; Chronic, 206; in Endocarditis, 401; in Gastritis, 293; in Measles, 141; in Pericarditis, 390; in Peritonitis, 341; in Pleurisy, 225; in Pneumonia, 238; in Rheumatism, 373; in Scarlet Fever, 130; in Smallpox, 117; in Typhoid Fever, 93; in Varicella, 146.
- Cactus in Angina Pectoris, 382; in Pericarditis, 390.
- Cancer of the Intestines, 333; of the Liver, 353; of Oesophagus, 278; of Stomach, 301.
- Cantharis in Abscess of the Kidney, 438; in Diabetes Mellitus, 450.
- Capillary Bronchitis and Measles, 138.
- Carcinoma of the Kidney, 441.
- Causticum in Diphtheria, 193.
- Causes, Chemical, 10; Endopathic, 10; Exciting, 9; Exopathic, 10; Predisposing, 1; of Death, 37.
- Cerebro—Spinal Meningitis, 146; Aconite in, 153; Apium virum in, 154; Bathing in, 153; Belladonna in, 153; Bryonia in, 154; Blood Examination in, 154; Cold Applications in, 153; Gelsemium in, 153; Hyoseyamus in, 154; Incubation of, 146; Pathology of, 149; Phosphorus in, 154; Sulphur in, 154; Symptoms of, 149; Tartar Emetic in, 154; Treatment of, 153.
- Chemical Causes, 10.
- Chest, Examination of, 157.
- Chickenpox, 145.
- China in Gallstones, 346; in Typhoid Fever, 94.
- Chronic Bronchitis, 206; Enteritis in Tuberculosis, 268; Gastritis, 293.
- Cirrhosis of the Liver, 350.
- Climate in Tuberculosis, 246-262.
- Cold Applications in Cerebro—Spinal Meningitis, 153.
- Colocynth in Catarrhal Enteritis, 313; in Chronic Gastritis, 297; in La Grippe, 277; in Phlegmonous Enteritis, 321.
- Croton Tig. in Catarrhal Enteritis, 313; in La Grippe, 274; in Typhoid Fever, 94.
- Croupous Pneumonia, 229.
- Death, Causes of, 37.
- Diabetes Insipidus, 442; Prognosis of, 445; Treatment of, 445.
- Diabetes Mellitus, 446; Apium virum in, 450; Cantharis in, 450; Diet in, 449; Etiology of, 446; Gelsemium in, 450; Prognosis of, 449; Symptoms of, 446; Treatment of, 449.
- Degeneration of Kidney, 442.
- Diagnosis, 10, 30; of Bright's Disease, 429.
- Diet in Diabetes Mellitus, 449; in Gastritis, 289; in La Grippe, 277; in Malarial Fever, 106; in Smallpox, 117; in Typhoid Fever, 89; in Ulceration of Stomach, 301.
- Digitalis in Angina Pectoris, 382; in Bright's Disease, 434; in Pericarditis, 390; in Pleurisy, 226.
- Diphtheria, 178; Aconite in, 190-193; and the Health Authorities, 186; and Microscopical Tests, 186; and Scarlet Fever, 126; Antitoxin in, 193; Bathing in, 185; Belladonna in, 190; Causticum in, 193; Etiology of, 178; Diagnosis of, 186; Kali Bich. in, 193; Lachesis in, 193; Membrane of, 181; Merc. Iod. in, 193; Nitric Acid in, 193; Paralysis of, 185; Phytolacca in, 193; Rheumatism in, 185; Symptoms of, 182; Treatment of, 189.
- Disease, 1.
- Diseases of Respiration, 157.
- Disfigurement in Smallpox, 118.
- Dropsy in Scarlet Fever, 129.
- Drosera in Bronchitis, 210; in Laryn-

INDEX.

- gitis, 174; in Measles, 141; in Pleurisy, 226; in Pneumonia, 238; in Tuberculosis, 265; in Whooping Cough, 214.
- Dysentery, 322; Aconite in, 326; Leptandrin in, 326; Merc. Corr. in, 326; Merc. Sol. in, 326; Nux Vomica in, 326; Podophyllum in, 326; Symptoms of, 322; Treatment of, 325.
- Elaterin in Bright's Disease, 433.
- Elaterium in Bright's Disease, 433.
- Emphysema, 165.
- Endocarditis, 393; Aconite in, 401; and Scarlet Fever, 129; Apis in, 401; Apocynum in, 401; Bryonia in, 401; Pathology of, 393; Prognosis of, 398; Rhus Tox. in, 401; Symptoms of, 393; Treatment of, 401; Veratrum viride in, 401.
- Endopathic Causes, 10.
- Enteritis, Catarrhal, 309; Catarrhal, Aconite in, 313; Catarrhal, Aloes in, 314; Catarrhal, Colocynth in, 313; Catarrhal, Croton tig. in, 313; Catarrhal, Etiology of, 309; Catarrhal, Gelsemium in, 313; Catarrhal, Nux Vomica in, 313; Catarrhal, Podophyllum in, 314; Catarrhal, Treatment of, 310; Phlegmonous, 314; Phlegmonous, Aconite in, 318; Phlegmonous, Belladonna in, 318; Phlegmonous, Colocynth in, 321; Phlegmonous, Etiology of, 314; Phlegmonous, Mercurius in, 321; Phlegmonous, Morphia in, 321; Phlegmonous, Nux Vomica in, 321; Phlegmonous, Symptoms of, 317; Phlegmonous, Treatment, 318.
- Eruption of Measles, 134; of Smallpox, 109.
- Eruptive Diseases, Incubation of, 142.
- Erysipelas and Scarlet Fever, 129.
- Etiology of Bright's Disease, 421; of Diabetes Mellitus, 446; of Phlegmonous Enteritis, 314.
- Eupatorium perfoliatum in Malarial Fever, 105; in Tuberculosis, 265.
- Examination, 13; of Chest, 157.
- Exciting Causes, 9.
- Exopathic Causes, 10.
- Fatty Liver, 357.
- Fever, 54-57; Hay, 162; Intermittent, 58; Malarial, 58-97; Scarlet, 121; Spotted, 146; Remitting, 58; Typhoid, 66.
- Floating Kidney, 412.
- Gallstones, 342; Aconite in, 346; China in, 346; Leptandrin in, 346; Morphia in, 346; Mercurius in, 346; Olive oil in, 346; Podophyllum in, 346; Symptoms of, 345; Treatment of, 346.
- Gastritis, 286; Aconite in, 290; Arsenic in, 290; Bryonia in, 293; Diet in, 289; Ipecac in, 290; Tartar emetic in, 290; Treatment of, 289; Chronic, 293; Chronic, Arsenic in, 297; Chronic, Colocynth in, 297; Chronic, Diet in, 293; Chronic, Ipecac in, 297; Chronic, Nux Vomica in, 297; Chronic, Symptoms of, 293; Chronic, Treatment of, 293.
- Gelsemium in Asthma, 165; in Catarrhal Enteritis, 313; in Cerebro-Spinal Meningitis, 153; in Diabetes Mellitus, 450; in La Grippe, 274; in Malarial Fever, 102; in Typhoid Fever, 93.
- German Measles, 142.
- Gin Drinker's Liver (see Cirrhosis, 350.)
- Hay Fever, 162.
- Health Authorities and Scarlet Fever, 129.
- Heart, Hypertrophy of the, 405; Hypertrophy of, Prognosis, 409; Hypertrophy of, Symptoms, 406; Palpitation of the, 402.
- Hemorrhage from the Stomach, 285; in Tuberculosis, 266; Vicarious, 285.
- Hepar Sulphur in Abscess of the Liver, 354; in Laryngitis, 174; in Pleurisy, 226; in Quinsy, 169; in Rheumatism, 374; in Smallpox, 117; in Whooping Cough, 214.
- Heredity—Influence of, 2.
- Hobnail Liver (See Cirrhosis), 350.
- Hyoscyamus in Cerebro-Spinal Meningitis, 154; in Typhoid Fever, 93.
- Hyperaemia of the Liver, 358.
- Hypertrophy of the Heart, 405.

INDEX.

- Hydatid of the Liver, 357.
Immunity in Disease, 5.
Imperial Granum in Typhoid Fever, 80.
Inflammation, 54.
Incubation of Cerebro-Spinal Meningitis, 146; of Eruptive Diseases, 142; of German Measles, 142; of Measles, 133; of Scarlet Fever, 125; of Whooping Cough, 213.
Inspection, 157.
Intermittent Fever, 58.
Intestinal Canal, 306.
Intestines, Cancer of the, 333; Cancer of, Prognosis of, 337; Cancer of Symptoms, 334.
Intubation in Membranous Croup, 178.
Invasion, Mode of, 14.
Ipecac in Asthma, 165; in Chronic Gastritis, 297; in Gastritis, 290; in Malarial Fever, 105; in Tuberculosis, 268.
Jaundice, 349.
Kali Bich. in Asthma, 197; in Diphtheria, 193; in Membranous Croup, 177; in Quinsy, 169.
Kidney, Abscess of, 438; Amyloid, 442; Carcinoma of, 438; Degeneration of, 442; Diseases of the, 412; Floating, 412.
Lachesis in Diphtheria, 193.
La Grippe, 270; Aconite in, 274; and Typhoid Fever, 82; Belladonna in, 274; Colocynth in, 277; Croton Tig. in, 274; Diet in, 277; Etiology of, 270; Gelsemium in, 274; Mercurius in, 277; Nux Vomica in, 277; Podophyllum in, 274; Spinal Meningitis in, 273; Treatment of, 274.
Laryngitis, 170; Aconite in, 173; Drosera in, 174; Hepar in, 174; Spongia in, 173; Symptoms of, 170; Treatment of, 173.
Leptandrin in Dysentery, 326; in Gallstones, 346.
Liver, The, 342; Abscess of the, 354; Abscess of the, Hepar Sulphur in, 354; Abscess of the, Mercurius in, 354; Abscess of the, Treatment of, 354; Cancer of, 353; Cirrhosis of, 350; Cirrhosis of, Etiology of, 350; Cirrhosis of, Symptoms of, 350; Cirrhosis of, Treatment of, 350; Fatty, 357; Hydatid of the, 357; Hydatid of, Treatment of, 357; Hyperaemia of, 358; Yellow Atrophy of, 361.
Lobelia in Asthma, 165-197.
Lobular Pneumonia, 237.
Malarial Cachexia, 101.
Malarial Fever, 58, 97; and La Grippe, 101; and Typhoid Fevers, 81; Ars. in, 106; Classes of, 97; Eupat. Perfol. in, 105; Gelsemium in, 102; Germ of, 97; Ipecac in, 105; Nux Vom. in, 105; Quinine in, 101; Symptoms, 101; Treatment of, 101.
Measles, 133; and Albuminuria, 138; and Capillary Bronchitis, 138; and Middle Ear Disease, 138; and Nephritis, 141; and Meningitis, 138; and Pneumonia, 138; and Rheumatism, 138; Belladonna in, 141; Bryonia in, 141; Drosera in, 141; Epidemics of, 133; Eruption of, 134; Germ of, 142; German, 142; German, Incubation of, 142; German, Treatment of, 142; Incubation of, 133; Scilla in, 141; Sulphur in, 142; Symptoms of, 134; Tartar Emetic in, 141; Treatment of, 141.
Membranous Croup, 174; Aconite in, 177; Bromine in, 178; Intubation in, 178; Kali Bich. in, 177; Quarantine in, 177; Symptoms of, 177; Tracheotomy in, 178; Treatment of, 177.
Meningitis and Measles, 138; Cerebro-Spinal, 146.
Mensuration, 158.
Mercurius in Abscess of the Liver, 354; in Gallstones, 346; in La Grippe, 277; in Phlegmonous Enteritis, 321; in Peritonitis, 341; in Smallpox, 117.
Merc. Corr. in Dysentery, 326.
Merc. Iod. in Quinsy, 169; in Diphtheria, 193.
Merc. Sol. in Dysentery, 326; in Rheumatism, 374.
Mode of Invasion, 14.
Morphia Sulph. in Abscess of the

INDEX.

- Kidney, 438; in Appendicitis, 333; in Phlegmonous Enteritis, 321; in Renal Calculus, 437; in Tuberculosis, 266; in Gallstones, 346.
- Nephritis, Acute Parenchymatous, 414; Acute Parenchymatous, Aconite in, 417; Acute Parenchymatous, Apium Virum in, 418; Acute Parenchymatous, Apocynum in, 418; Acute Parenchymatous, Belladonna in, 417; Acute Parenchymatous, Symptoms of, 417; Acute Parenchymatous, Treatment of, 417; and Measles, 141; Chronic Interstitial, 426; Chronic Parenchymatous, 418.
- Nitric Acid in Asthma, 197; in Diphtheria, 193.
- Nux Vomica in Angina Pectoris, 382; in Catarrhal Enteritis, 313; in Chronic Gastritis, 297; in Dysentery, 326; in Gastritis, 290; in La Grippe, 277; in Malarial Fever, 105; in Phlegmonous Enteritis, 321.
- Objective Symptoms, 10.
- Oesophagus, 278; Cancer of, 278.
- Opium in Asthma, 165; as a Palliative, 49.
- Olive Oil in Gall-stones, 346.
- Palpation, 158.
- Palliative Treatment, 49.
- Pancreas, The, 361.
- Paralysis in Diphtheria, 182.
- Parenchymatous Nephritis, Acute, 412; Chronic, 418.
- Pathognomonic Symptoms, 10.
- Pathology of Cerebro-Spinal Meningitis, 149; of Pleurisy, 217.
- Percussion, 161.
- Pericarditis, 385; Aconite in, 390; Bryonia in, 390; Cactus in, 390; Digitalis in, 390; Etiology of, 385; Prognosis of, 390; Spigelia in, 390; Symptoms of, 389; Treatment of, 390.
- Peritonitis, 337; Aconite in, 341; Belladonna in, 341; Bryonia in, 341; Etiology of, 337; Mercurius in, 341; Pathology of, 338; Symptoms of, 338; Treatment of, 341.
- Perityphlitis (See Appendicitis), 329.
- Phlegmonous Enteritis, 314.
- Phosphorus in Asthma, 165; in Cerebro-Spinal Meningitis, 154; in Pneumonia, 238; in Whooping Cough, 214.
- Phytolacca in Diphtheria, 193; in Rheumatism, 374.
- Physical Examination of Tuberculosis, 250; Signs of Bronchitis, 202; Signs of Pleurisy, 218.
- Plasmodium Malariae, 98.
- Pleurisy, 214; Aconite in, 225; and Scarlet Fever, 129; Apium Virum in, 226; Apocynum in, 226; Bryonia in, 225; Digitalis in, 226; Drosera in, 226; Hepar Sulphur in, 226; Pathology of, 217; Physical Signs of, 218; Pyothorax in, 222; Sulphur in, 226; Symptoms of, 218; Tartar Emetic in, 226.
- Pneumonia, 226; Aconite in, 237; and Measles, 138; and Typhoid Fever, 82; Bryonia in, 238; Croupous, 229; Drosera in, 238; Lobular, 237; Phosphorus in, 238; Sulphur in, 238; Treatment of, 237.
- Podophyllum in Catarrhal Enteritis, 314; in Dysentery, 326; in Gallstones, 346; in La Grippe, 274.
- Pothos Foetidus in Asthma, 165.
- Predisposing Causes, 1.
- Predisposition to Disease, 6.
- Present Condition, 14.
- Prognosis, 30; of Diabetes Insipidus, 445; of Diabetes Mellitus, 449.
- Puerperal Fever and Typhoid Fever, 81.
- Pulse, 61.
- Pyæmia, 57.
- Pyothorax and Scarlet Fever, 129; in Pleurisy, 222.
- Quarantine in Scarlet Fever, 130; in Smallpox, 118.
- Quinine in Malarial Fever, 101.
- Quinsy, 166; Aconite in, 169; Baryta Carb. in, 169; Belladonna in, 169; Hepar in, 169; Kali Bich. in, 169; Merc. Iod. in, 169; Symptoms of, 166; Treatment of, 169.
- Remitting Fever, 58.
- Renal Calculus, 434; and Life In-

